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JUNE 20, 1966

RAILWAY AGE
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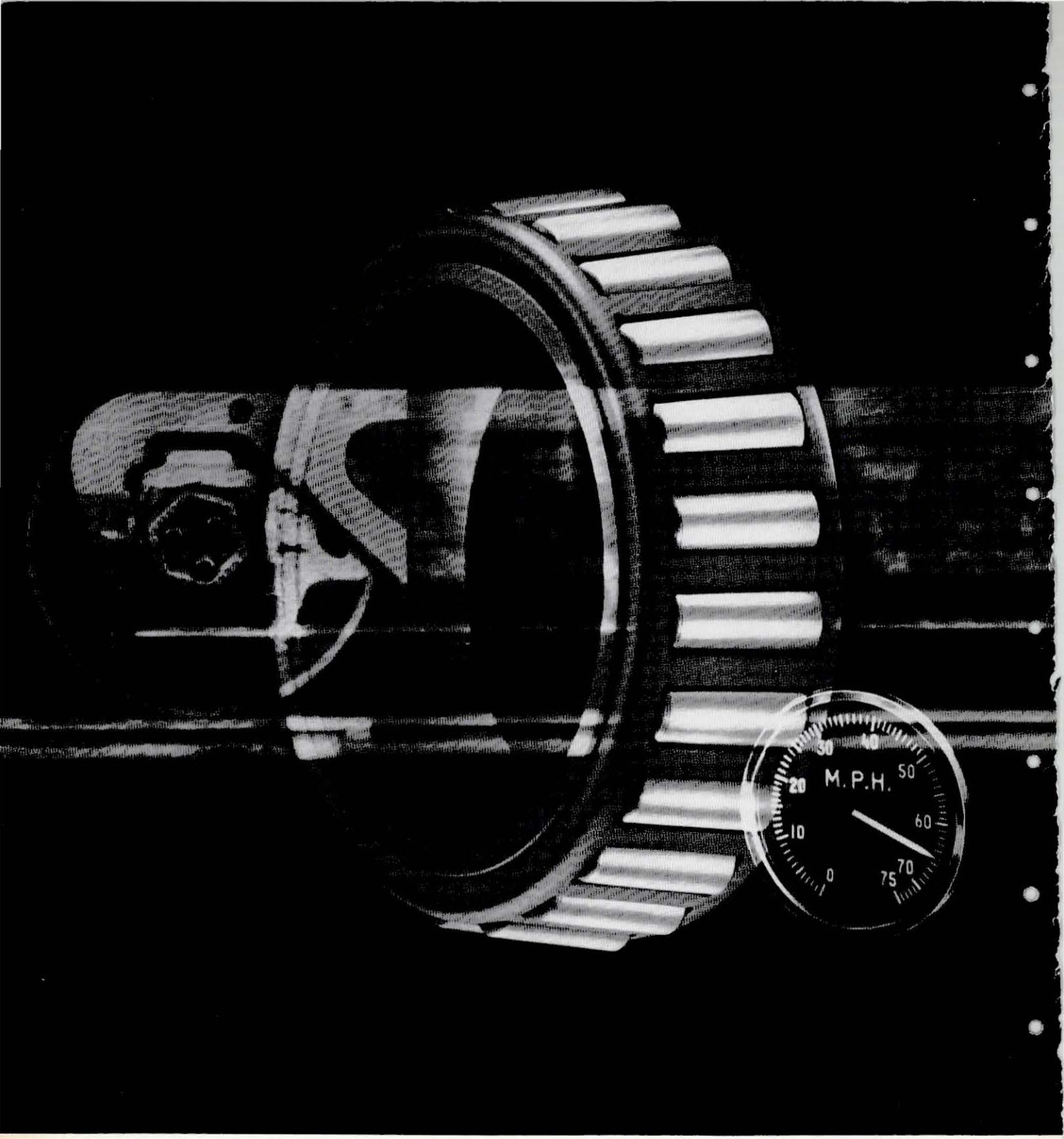

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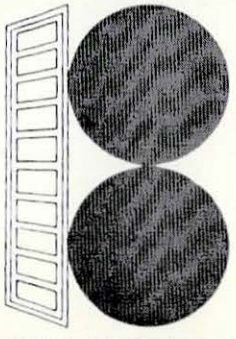

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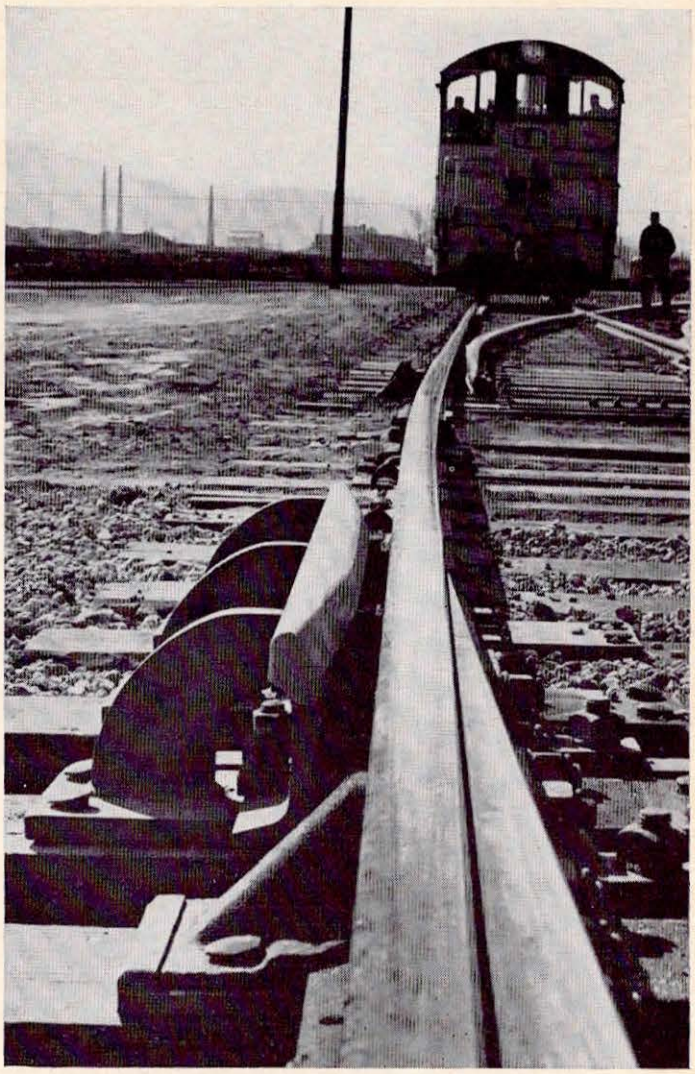

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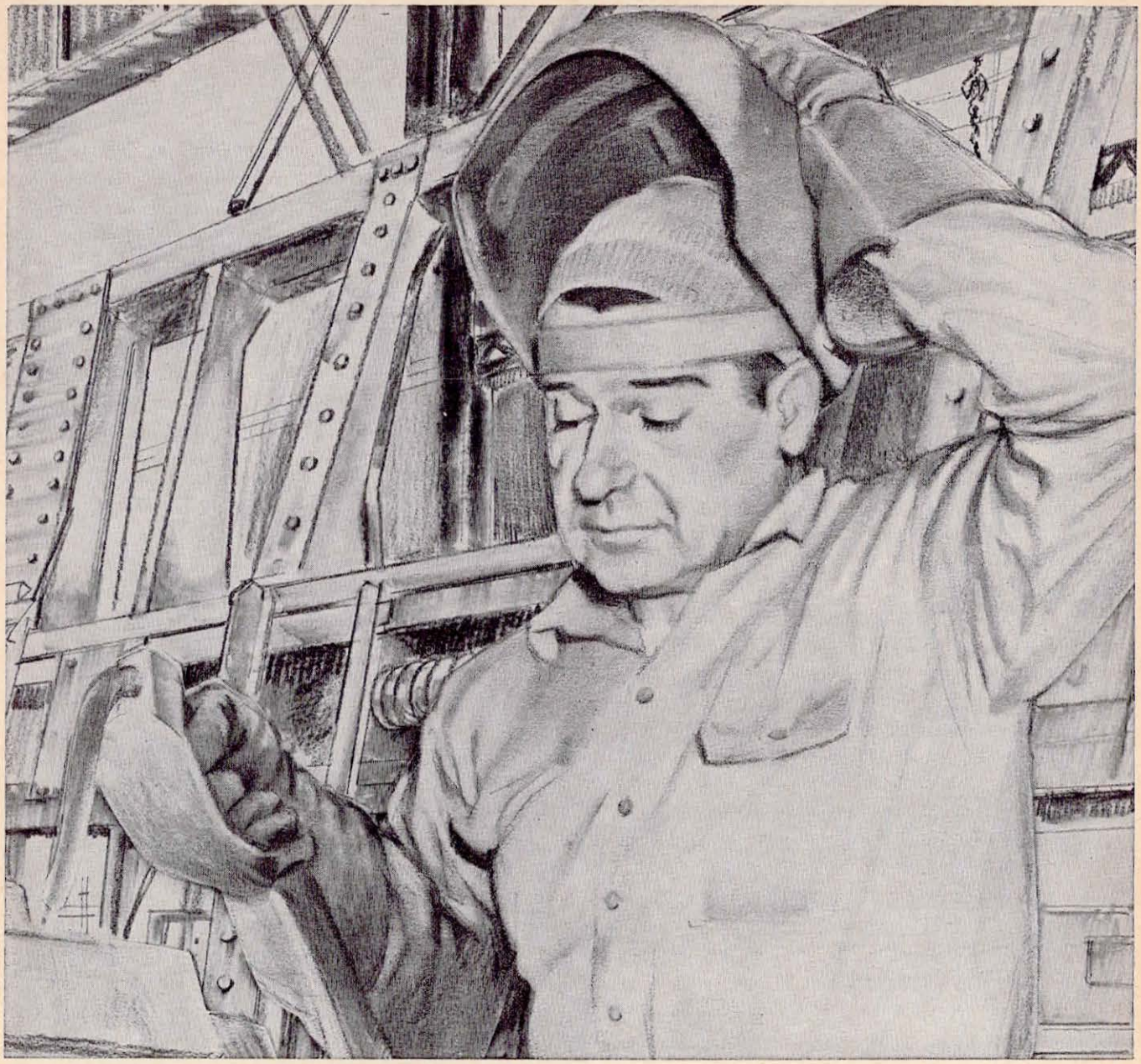

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RAILWAY AGE

June 20, 1966 • Vol. 160, No. 24

THIS WEEK

15 UP's move toward instant operating data

Four giant computers will help the UP provide prompt answers for every conceivable operating and commercial problem.

20 Data-Phone cuts P&S paperwork

A speedy and relatively simple ordering system called Data-Phone has an important side benefit: it helps cut inventory.

24 Passengers: Losses hold steady

Class I railroads last year had passenger-service losses totaling $420.6 million, the official AAR figures show.

28 N&W wants delay in PRR-NYC merger

The road has charged that the Pennsy conducted a campaign to defeat the proposed N&W-C&O merger.

30 Union RR controls operations with one machine

The machine, at Duquesne, Pa., operating headquarters, controls all train movements on the busy railroad.

40 The Action Page—Tradition crumbles at the top, too

Important changes are occurring in railroading's executive suites as the industry alters with the times.

DEPARTMENTS

29 As the Editor Sees It
35 Freight Carloadings
12 Lines on Labor
8 Monday Morning Report
35 New Equipment
34 New Products Report
38 People in the News
35 Railway Market
7 Short and Significant
38 Supply Trade
40 The Action Page
25 Watching Washington
11 Week at a Glance
36 You Ought to Know

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SHORT AND SIGNIFICANT

After 29 years, Hammond shops will hum again

Struggling to keep up with mounting orders for new freight cars, Pullman-Standard plans to reactivate its carbuilding shops at Hammond, Ind. Work will begin at Hammond in August on 300 60-ft, 70-ton flats for Trailer Train, and by the first week in September cars will be coming off the line at the rate of two a day. By November production will be up to eight cars a day. George L. Green, vice president and general manager of Pullman-Standard, said resumption of carbuilding at Hammond will add 200 employees to the company's payroll. At present P-S has 600 employees at Hammond, many of them involved in research and development work. No cars have been built at Hammond, said Green, since 1937, though the plant has continued to turn out car parts for other P-S plants and has done repairs for Trailer Train cars. Green said the company's total capital improvement program this year will amount to $8 million. Expansion of the Butler, Pa., plant, just completed, will increase covered-hopper production there from 30 cars to 43 cars a day. P-S has purchased eight acres of land for expansion at Bessemer, Ala.

●

Frisco, Southern call it quits

Apparently, Frisco and Southern have agreed not to agree on a consolidation. Talks began last autumn and went on rather quietly, but without indication of difficulties—until a brief announcement June 9 said that discussions have been terminated and "no further talks are presently planned." For Frisco, it's the third time a merger possibility has been investigated and then dropped. About two years ago, the road was eyeing Chicago Great Western, but then Chicago & North Western came in with a proposal for CGW. Last year, Frisco and Santa Fe were linked, but those discussions bogged down and were ended because of inability to agree on terms.

●

Computerized freight rates: Now a possibility?

The trillions of freight rates now on file with the Interstate Commerce Commission present an unwieldy collection of data that has often baffled the most astute tariff Sherlock. But now, says the Department of Commerce, a three-year study has shown that it's technically feasible to computerize the rates. It's come up with procedures for storage and search which successfully yield the same freight tariff information that a manual search would turn up. The project, undertaken by Battelle Memorial Institute of Cleveland, developed an explicit framework into which various types of tariff information could be organized, and then devised and demonstrated the general logic steps needed for computer storage retrieval. Commodity, class, exception, and column rates from the four land transport modes were included in the demonstration.

●

CSS&SB's Coliton cautions against more regulation

William P. Coliton, president of Chicago South Shore & South Bend, urged rail superintendents at the American Association of Railroad Superintendents meeting in Chicago June 9 to promote grass-roots opposition to the increased rail regulation by government he foresees if the administration's legislation creating a department of transportation is passed. Foreseeing glittering opportunity in the future, Coliton said the industry must "be alert to the areas in which it can be more competitive and more efficient, achieving greater speeds—both passenger and freight—with increased comfort and improved safety at lower cost, and must not be hamstrung by outmoded and unfair regulation."

MONDAY MORNING REPORT

NY's Train Crew Law: Repeal at last?

New York's 50-year-old Train Crew Law has long been described as an anachronistic remnant of the coal shovel era in railroading. But, while state after state across the nation has eventually gotten around to erasing the outdated crew laws from the books—only a handful of states still have them—the Empire State's lawmakers were not to be moved. Railroaders have lost track of the number of proposed repeal measures that have been derailed on their way to the Governor's office. This past year alone, 12 bills were introduced. But so far, nothing.

Getting up steam for another try

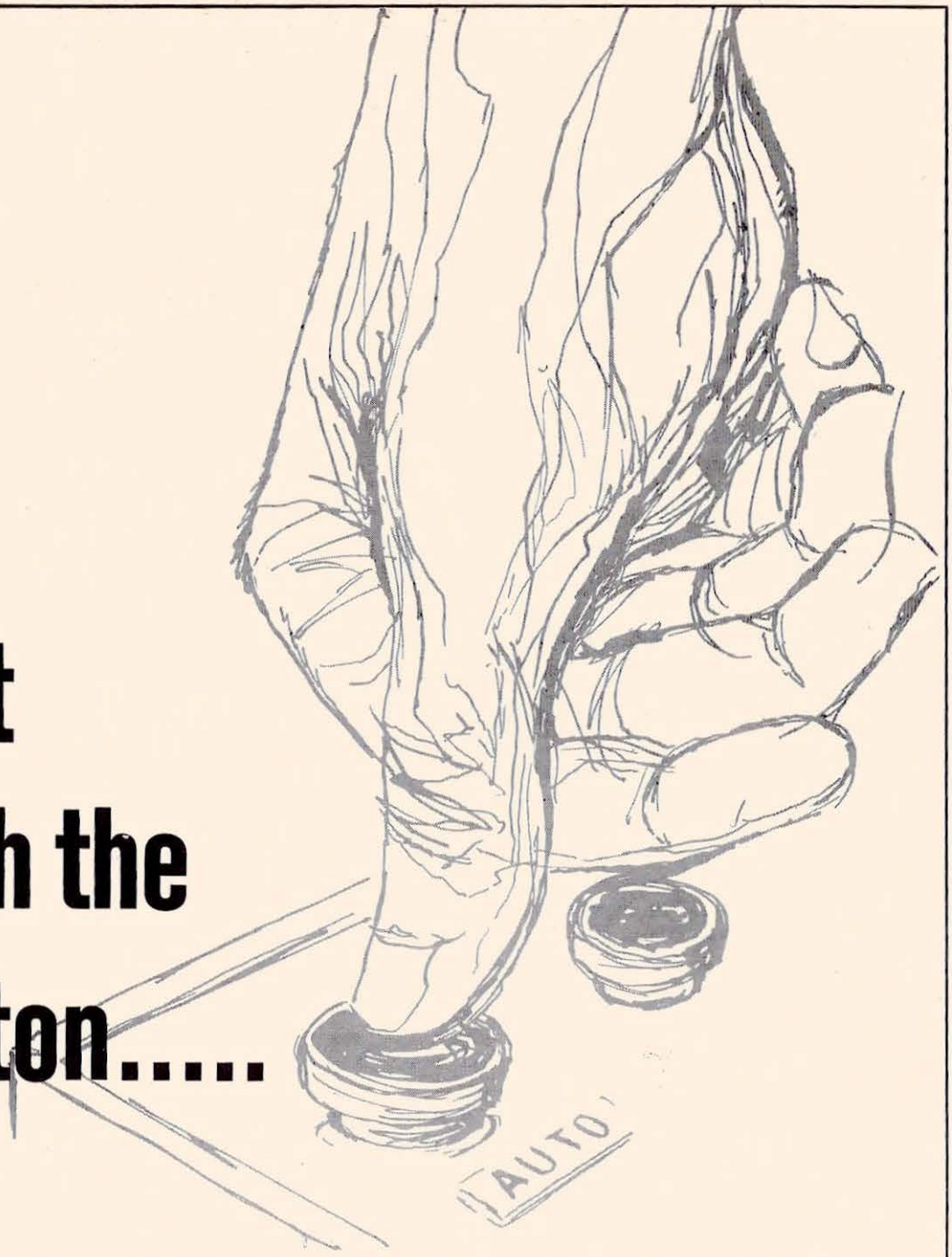
Last week, New York state railroad men were keeping an eye on Albany to see what happens to the latest "full-crew" repeal bill just introduced in the Legislature. And this time their hopes are high. The reason for the optimism is based on an announcement made earlier in the week that one of the prime opponents of previous repeal attempts, the two-million-member New York State AFL-CIO, this time would rather switch than fight. The giant and influential union's president told the press that because of negotiated labor-management agreements, the state labor organization won't stand in the way of any future attempts at crew-law repeal. The AFL-CIO's Switchmen's Union of North America thus joins the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Engineers in announcing withdrawal of opposition to repeal. The latter two unions represent more than 71% of the rail operating employees in the state.

The Governor acts fast

Taking a cue from the AFL-CIO announcement, Gov. Nelson Rockefeller quickly sent off to the legislature the bill that he hopes will be the final round in the long bout. It would eliminate all "full crew" requirements from state law except for the so-called diesel firemen provision, Section 54-b, which requires an engineer and a fireman or helper on all fuel-electric engines. The railroads had hoped that this latter provision might also be eliminated. Two provisions which the legislation would repeal require specific numbers for train crews for over-the-road and yard-switching operations—including the third brakeman and a baggageman—one more brakeman and baggageman in New York than the national railroad collective bargaining agreements have specified. The bill provides protection for employees who held these positions on May 1st this year.

Repeal will benefit both sides of the street

As it now stands, New York's Train Crew Law costs the railroads in the state an estimated $18 million annually for jobs considered unnecessary and unproductive. Its repeal, say the railroads, should make New York lines more competitive with those of neighboring states, stimulate industrial development, and stabilize employment in the railroad industry and in other industries. With the Penn-Central merger imminent, there has been concern that traffic might be diverted from the New York Central's lines to the Pennsy's because crew costs in Pennsylvania can be as much as a third lower than those in New York. "The Train Crew Law," says the New York Association of Railroads, "could well be decisive in preventing New York from reaping its full share of merger benefits not only in railroad employment and service, but also in attracting new industry and stimulating plant expansion." This time around, people on both sides of the labor-management street hope the lawmakers will realize that everyone's interest is involved.



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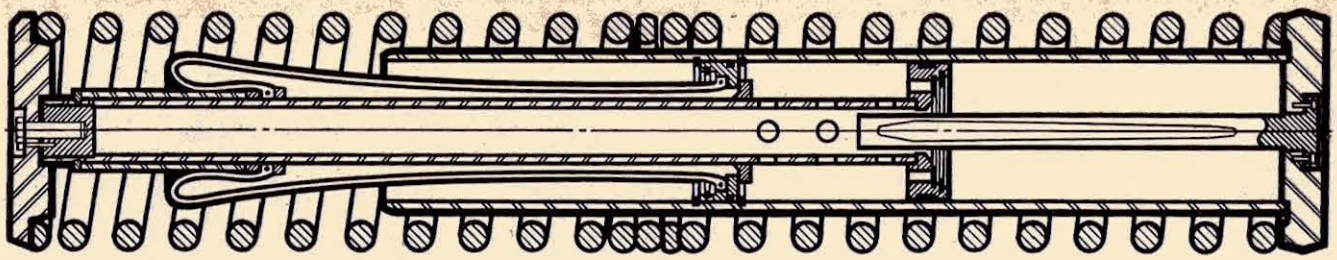

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WEEK AT A GLANCE

Santa Fe moves to block MoPac control bid

Santa Fe took ten days to reply to the MoPac-Mississippi River Fuel applications for control of Santa Fe and for inclusion of that control application into the already-complicated Rock Island control case. In three short and pointed petitions to the Interstate Commerce Commission June 10, Santa Fe asked for permission to intervene in the control application ("Being the carrier sought to be controlled, we have an interest in this proceeding," the petition says dryly). Santa Fe also filed a petition asking for dismissal of the control application without hearings on grounds that: applicants are trying to force the ICC to formulate a broad plan for consolidation after Congress relieved the Commission of the burden in 1940; MoPac has a greater capital debt than Santa Fe, and that MoPac has not demonstrated financial muscle enough to buy control of financially-strong Santa Fe. In a separate petition to the ICC (replying to the petition for inclusion of the case into the Rock Island case), Santa Fe asked the cases not be consolidated, even if the ICC does not dismiss the control case, both because the Santa Fe control case is big enough to warrant a case of its own and because "such consolidation would unduly broaden the scope of the issues" in the already too-tangled merger contest over Rock Island between Union Pacific and C&NW.

A few days later, Union Pacific, Rock Island and Southern Pacific also filed petitions with the Commission. While neither supporting nor opposing MoPac's bid for control of Santa Fe, they opposed inclusion of the control application into the Rock Island merger case. Beside complicating and delaying the proceedings, said the roads, such inclusion would "contribute nothing to a more realistic and effective appraisal of the best rail system for the nation."

Will it be unity for the BLF&E, ORC&B and SUNA?

All firemen, road conductors and brakemen and yardmen may eventually become members of a single rail labor organization—if a plan approved by chief executives of three existing unions gets the approval of the "authoritative bodies" involved. H. E. Gilbert, president of the Brotherhood of Locomotive Firemen & Enginemen; George H. Harris, president of the Order of Railway Conductors & Brakemen; and Neil P. Speirs, president of the Switchmen's Union of North America, say they'll recommend that the three organizations unite in a new union as "a significant step forward in preparing the existing organizations for the demands of the future." First consideration of amalgamation will likely come later this month, when the ORC&B holds its convention at Cedar Rapids, Iowa. The BLF&E has a general policy committee empowered under 1963 convention action to approve or disapprove a consolidation. And in SUNA, the proposal will likely have to go to a membership referendum. A spokesman for one of the unions emphasized that craft lines and existing contracts would not be affected by the kind of amalgamation proposed. But he also called the current proposal a "principle-and-policy-type" matter. Details of the actual organization itself, he indicated, would be worked out after three-way approval of the basic move.

New Haven sets a date for fast trains

Gas-turbine-powered passenger trains should be speeding over the New Haven's line between Providence and Boston by Mar. 1 of next year, it was announced last week. The two experimental Turbo-Trains, being built under a Department of Commerce grant, are designed to test improvements in long-haul passenger service.

Initially, the trains—capable of up to 160 mph—will be in roundtrip service between Providence and Boston. After some six months of testing it's expected that the service will be extended to run between Boston and New York. The road hopes to cut an hour off the present running time of four hours and 15 minutes between the two cities.

Boston, Chicago to get transit construction funds

Federal Housing & Urban Development Undersecretary Robert C. Woods was unable to keep his speaking date at the annual meeting of the Institute for Rapid Transit in Boston last week. He had a good reason for staying away: HUD was finalizing approval of a $9 million grant to Boston's MBTA for construction of a mile-long rapid transit tunnel under the Charles River to Charlestown. The $9 million is being matched by local funds, and if certain planning conditions are met, the federal share will increase by $3 million.

More good news during the course of the meeting reached IRT President George DeMent from Chicago, where he is also chairman of the Chicago Transit Authority: The city's voters approved a $195-million bond issue which will provide $28 million to match $50 million in federal funds for expansion of the CTA's lines in the median strips of the Kennedy and Dan Ryan Expressways through the city.

'Operation Reading' reports a good first year

The 18-month passenger service demonstration being conducted by the Reading and the Southeastern Pennsylvania Transportation Authority passed the two-thirds mark last week, and things are looking good. The experiment, reported railroad and Authority spokesmen, successfully ended its first year with substantial gains made in increasing revenues and ridership and in reducing costs.

Passenger traffic in the first year of "Operation Reading" grew from 38,462 riders per week day as of April 1965, to 40,100 riders per week day in April 1966—a jump of 4.3%. In the same period the operating deficit before public payments was reduced from $4.6 million annually, to $4.0 million—a 13% improvement.

The growth in ridership and reduction of costs were attributed to institution of a new fare system in three phases, improvement of schedules and levels of service, and cooperation between labor and management to improve operating procedures.

GUS WELTY'S LINES ON LABOR

WELTY

THE BROTHERHOODS, rather quietly, are working on a pretty respectable batting average in Congress—and they may be getting ready to go for the home run. Thus far in 1966, two measures regarded as important by rail labor organizations have won final legislative approval—both clearing the Senate after receiving House approval in '65. One bill may have meaning for much of the industry; the other is the union's attack-through-legislation on Florida East Coast, where strike action alone has failed to get the organizations what they demand.

MOST RAILROADS, one way or another, may be affected by the bill known originally as H.R. 706. This rather brief piece of legislation amends the Railway Labor Act in two major ways: It provides for establishment of special adjustment boards, on call of either company or union, to settle disputes otherwise referable to the National Railroad Adjustment Board; and it makes all awards of the NRAB (including money awards) final and binding. The Brotherhood of Railroad Trainmen led off a long fight for this bill, with most other unions—with an exception or two—adding significant strength.

THE FEC LEGISLATION amends the Bank Holding Company Act of 1956 to require certain trusts and investment companies to choose between getting rid of their banking or non-banking business. A main target: The trust established by the Alfred I. du Pont estate which controls a number of banks in addition to FEC and other enterprises. Under the bill, the estate would have five years to make its choice—but, with the unsuccessful FEC strike already more than three years old, the whole thing could be a moot proposition, so far as the unions are concerned.

AND THE HOME RUN which the brotherhoods may now aim for? Congressional action to give retired employees supplemental pensions, over and above Railroad Retirement pensions. A number of unions have Section 6 notices pending on the pension demand—but, as Brotherhood of Railway Clerks' President C. L. Dennis indicated early this year (RA, Jan. 31, p. 115), the Congressional route may really be the one to follow.

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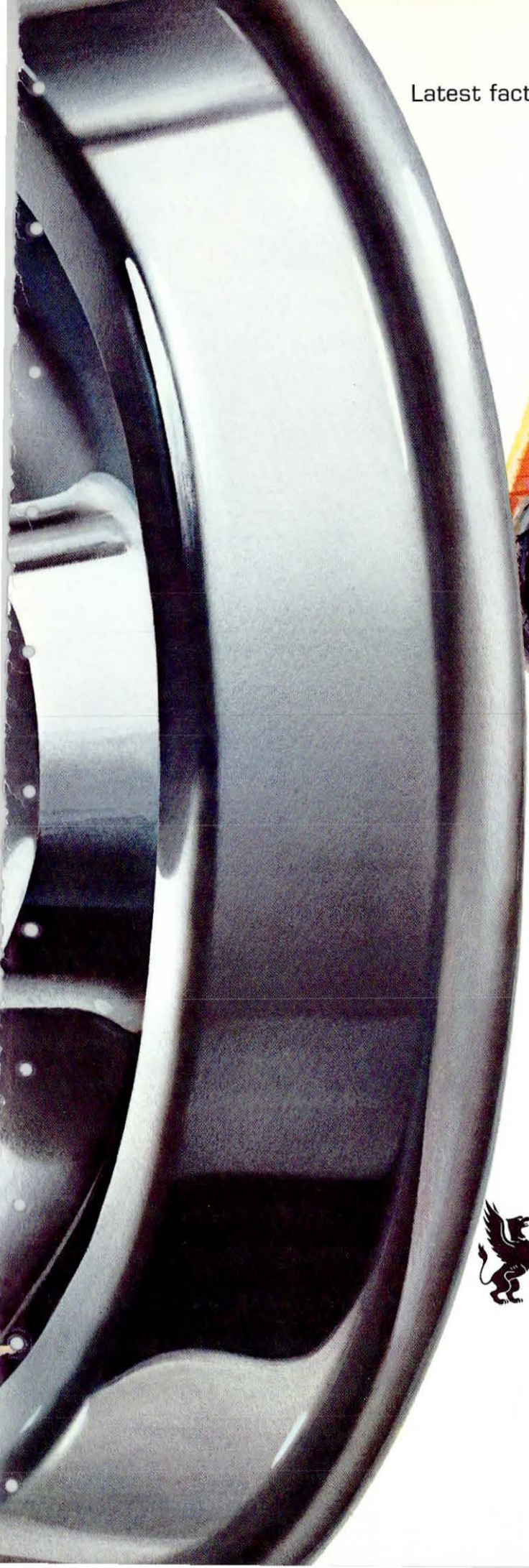
Latest facts about the strongest wheel on rails:



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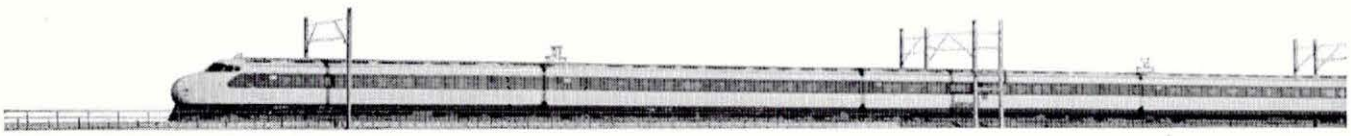

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COVER PHOTO: Steering committee to guide planning for the UP's new huge computer complex was appointed by Edd H. Bailey (center), the road's president. It consisted of Stanley J. How (left), assistant to the president, and Arthur O. Mercer (right), general auditor. The committee was charged with full responsibility for coordinating all work on the complete operating information network called COIN.

UP's big move toward instant operating data

- **Complete operating information network is planned.**
- **First of four giant computers is coming in November.**

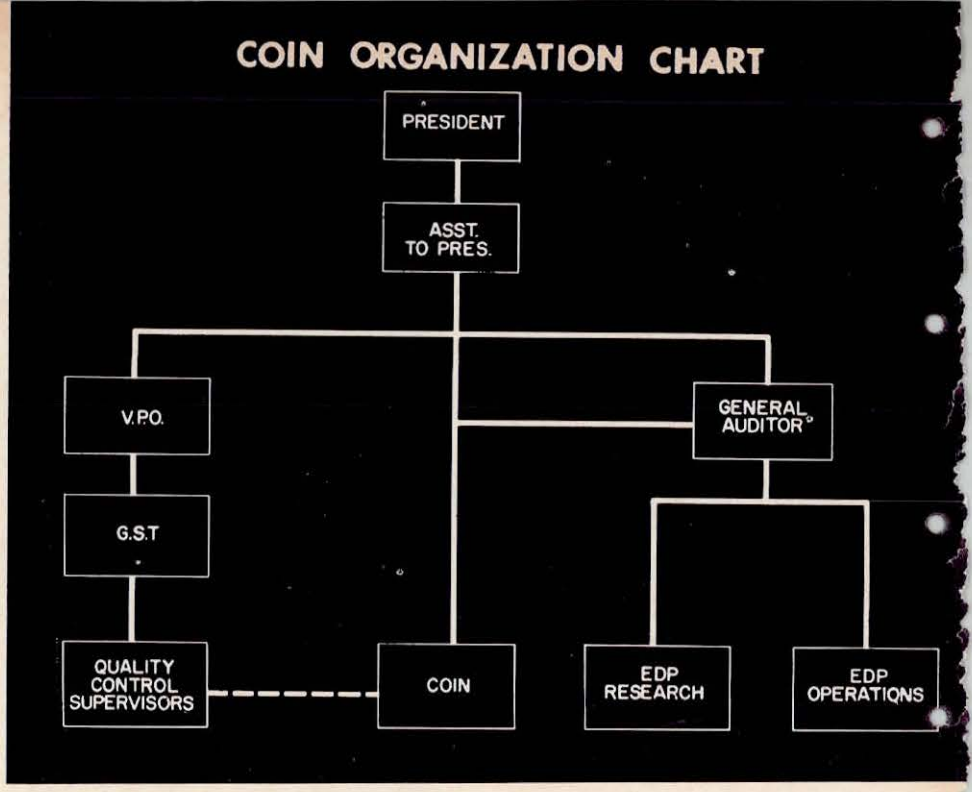
In November mighty Union Pacific will start playing the "real-time" computerization game with real money.

Scene of the action will be UP's neat limestone-and-brick headquarters building in Omaha—or, rather, the million-dollar, five-story EDP annex right behind headquarters.

It isn't the best place in Omaha to gather a crowd of sidewalk superintendents. But, it's a good bet there will be a crowd on hand to watch overall-clad technicians bring in an astonishing computer (the IBM 360/30), the first of four such machines slated for delivery to UP in the next 18 months.

Not that Omahans are prone to computer-watching. They're not—Omaha being the insurance center it is. The sidewalk superintendents will be a UP crowd, top officers as well as general office employees. They'll all be there to see the first hardware manifestation of COIN (complete operating information network), an electro-mathematical system designed to significantly alter the pattern, pace and profitability of operations and commercial activity on the giant Western system.

- **At it less than a year.** COIN will,



when finished, be a system capable of capturing operating information "as it happens" so that UP's men and managers can control events along the road's 10,000 miles of track, in its 42 yards and 80 interchange points. The computer coming in November represents only the latest of several planning, design, microwave and communications moves that have moved UP right into the race for real-time computerization.

Like ACL, L&N, NYC, Southern, SP, WP and other roads, Union Pacific is now committed to the most complicated, expensive race the industry has ever been in—the search for a computer/communications set-up that will produce instant answers for every conceivable operational and commercial problem encountered in day-by-day railroading.

● **Pioneer EDP road.** UP's EDP experience goes back to 1950, when it began doing operating and accounting work by computer.

Union Pacific's automation committee of 1950 was headed by Stanley J. How, then assistant to operating vice president. The committee members were officers second-in-command of UP's operating, traffic, transportation, communications, equipment and accounting departments. During the mid-Fifties the road's EDP center began handling a constantly increasing schedule of work. A steering committee jointly headed by Reginald M. Sutton (now vice president and controller) and How, and having as members whatever department heads were involved in automation of work, was formed to coordinate and plan EDP expansion.

In early 1965, UP officers (many of them members of the previous groups) began meeting informally on Tuesday evenings. They wanted to examine some basic questions: "What parts of our road's already-existing computer operations can be dovetailed into UP's new microwave network? What is required before we can expect to get reliable, complete operating information?" The answers were needed to draft a proposal for Union Pacific President E. H. Bailey that UP make a bold move for real-time computerization.

● **Visits to other roads.** Groups of Union Pacific specialists began traveling around the country. They examined first-hand the experience and results of the roads already in the race for real-time operations.

President Bailey and other top Union Pacific officers went to IBM headquarters in New York, where experts gave them a condensed course in computer capabilities. "I was groggy," recalls one of the delegation, "but it was the first time I began to understand the computers' suitability for manipulating arithmetical and statistical facts."

● **Decision comes swiftly.** After careful study of both UP's own experience and prudent evaluation of others' experience, the road's President Bailey and his staff made a series of decisions aimed at structuring operations and people for the changes ahead. COIN, in fact, was born when Bailey gave the green light for ordering an immense computer capability—when UP's specialists were still unsure just how it would be used, but were confident of the end result.

The road's decision to go for broke on COIN became known all over Union Pacific almost overnight. Bailey sent a personal message to every man and woman on the system. Machinists, brakemen, section foremen, yard clerks, trainmasters and other UP employees got this message from the boss:

"Union Pacific is embarked upon a revolutionary new program called COIN. The average freight car is used only 2 1/2 hours out of every 24 to transport a patron's product to market. The fault is not with UP's capable employees who order, dispatch and transport the cars. Rather, it lies with the lack of accurate, fast and dependable information.

"We now have on order the most highly developed computer complex available today. This, coupled with our soon-to-be-completed systemwide microwave network, will make possible an accurate, up-to-the-minute inventory of cars on line, both loaded and empty. Information generated by the thousands of cars moving on line will be transmitted direct to the computer complex where it will be analyzed for operating, traffic and accounting purposes. Prompt information as to loaded car location, empty car availability, etc., will be returned to interested employees.

"COIN will work. In order to make it a success, I need and earnestly solicit the help and cooperation of each and every one of the Union Pacific team. The welfare of every Union Pacific employee depends upon our ability to furnish better service than our competitors."

● **Steering group formed.** Bailey appointed a Steering Committee of Stanley How (now Bailey's assistant) and A. O. Mercer, general auditor, to plan, coordinate and carry through the complex undertaking.

"We've watched other railroads engaged in the chase for a real-time system," How recalls. "We felt there was not enough preparation made for such change as is required both for systems and people. We at the UP knew, through trying experience, during our EDP pioneering, that we had to structure a consensus to give such far-reaching innovation a chance. There's great inertia among people who don't understand what's involved."

Mercer recalls that individual departments already into EDP work "were already at a high level of capability." But, "departmental work had no place to go beyond its original destination and use."

COIN's steering committee, basically, had one problem—to mesh all of UP's existing patterns of EDP output into the new requirement and to structure

the road's manpower and work so that COIN could contribute what theorists said it could contribute to the UP.

● **Working committees formed.** Expandable as an accordion, the COIN Steering Committee drew in department heads as the project invaded departmental territory. Additionally, permanent subcommittees were formed. J. L. Jorgensen was named chairman of COIN's EDP Research group, D. J. Peterson was made director of the COIN Committee.

How and Mercer, once the point of no-return had been passed on COIN, placed heavy emphasis on working committees looking into specific areas such as inventory, revenue accounting and so forth. Continual emphasis at all levels was maintained from the beginning on UP's people.

"Our people are more vital to COIN's eventual value than any other single factor," notes How. "There has been careful cross-seeding of EDP people back into standard departments. Labor relations, operating, etc., are regular participants in Steering Committee meetings. Decisions represent genuine cross-structuring.

"Above all, we don't work in the dark. The Steering Committee makes decisions on-the-spot for operating committees. Minutes of meetings go to all department heads—and to Mr. Bailey and Mr. Sutton."

● **Constant education vital.** Mercer points out that in addition to Bailey's communication to all employees, a major effort is being made to bring knowledge and understanding of COIN to both management and employees. "We have held departmental meetings, seminars and scheduled training for people who will be drawn into the COIN system. More than that, we have tried to put out a maximum of information to everyone so that people will become involved at all levels."

Has it all worked? How and Mercer agree that it is working—and that agreement is getting easier to achieve as more and more people become committed to the task. How says, "I'm just continually proud of the really bright people we're uncovering. Agreement seems to come—just about the time when you have to have it."

As a case in point, consider the ground covered by UP's COIN Steering Committee at their last meeting.

Peterson, director of the COIN Committee, outlined COIN design progress to date and an outline of where UP stood the day of the meeting.

He then presented to the Steering Committee a system map of UP showing 80 train tie-up points representing tentative locations where input/output terminals should be located to capture data necessary for COIN. Machines at such locations as Peterson described were only tentative and won't be used, at first, for transmitting data to the COIN computer but will be used instead to replace transceivers for transmitting of advance consists—to get people acustomed to using the 1050s. Final locations will be fixed by studies being conducted by the COIN Committee and the road's communications department.

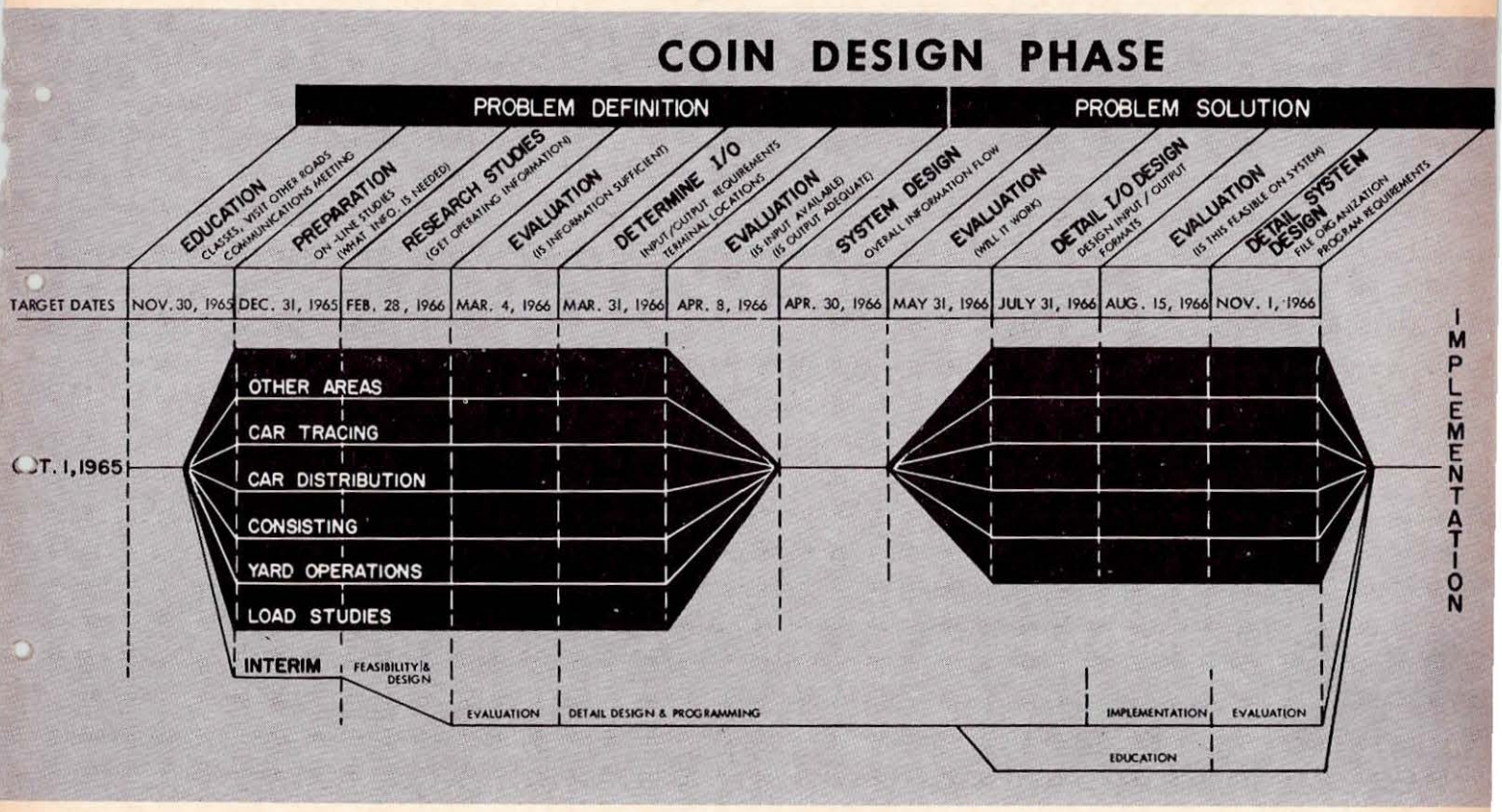
● **Labor relations watched.** The road's labor relations vice president, G. I. Farr, suggested a sub-committee of communications and operating personnel to work closely with the COIN group.

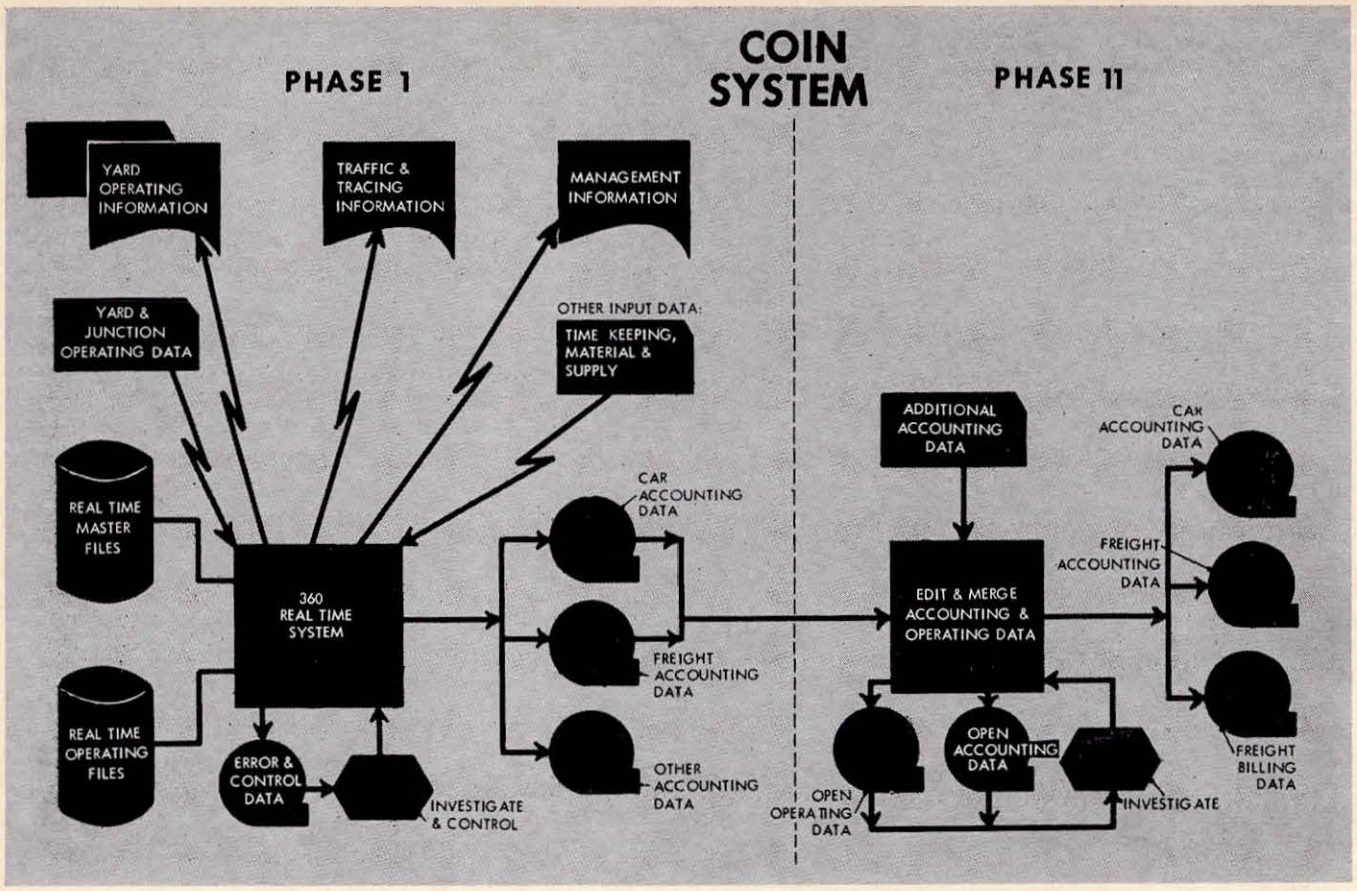
Interim steps were discussed at the Steering Committee meeting covering such projects as special patron reports, daily jumbo reports, system special equipment reports, weekly home route listings, special performance report (calling attention to cross-hauls and other practices leading to increased per diem payout), perpetual yard inventory performance report, and other phases of EDP work that are under way and which will ultimately be woven into COIN.

● **Training recommendations.** Another member of the COIN Committee, J. J. Quinn made recommendations for a team to train, police and protect points needing trained personnel for operation of the 1050 input devices—scheduled for delivery in September.

Ascertaining that a team of educators was desirable—and that they should later be kept on as quality control supervisors after COIN is operational—the Steering Committee told the COIN Committee to draft recommendations for such a team.

Other members of the Steering Com-





mittee gave progress reports on structuring for manifest and passing reports, selective car tracing terminals, regionalization of freight agencies and passenger accounts centralized billing and a current status report on the road's installation of its PICL (perpetual inventory car location) System.

● **Interdepartmental effort.** Attending the Steering Committee meeting were (aside from How and Mercer) Operating Vice President D. F. Wengert, the vice president-labor relations and two men from UP's communications department, General Superintendent Transportation J. Bowen, Vice President of Traffic J. R. MacAnally and assistant, eight men from the accounting department, two men from EDP-operations, four men from EDP research, the five-man COIN Committee and six IBM representatives.

Such meetings, once a month, clarify and meticulously spotlight work not moving on schedule. Planning and schedules are already formulated for events as far away as late 1968. "It is of great importance that COIN's problem definitions and solutions progress on time," notes How.

● **Bailey pushes progress.** The meetings have had zip from the beginning.

The first meeting got COIN off to a fast start. Many of the men who had been meeting—on their own time—every week on Tuesday evenings for a long time before (to formulate a proposal to put before Bailey) were in attendance.

—The Steering Committee reviewed reports made of visits to other roads planning or working on complete operating informations systems.

—Phases of COIN that could be implemented with existing EDP facilities were discussed. Decisions were made to push for centralized freight billing, complete transfer of freight agency accounting to headquarters, to accelerate freight agency regionalization, systems to control special equipment and to accelerate UP's perpetual inventory System.

—COIN Committee studies were planned for yard office procedures, car distribution procedures, reports and volumes.

● **Plans and schedules next.** A month later, the Steering Committee plunged into the deepening problems presented by COIN. Progress reports on perpetual-inventory installations, freight agency regionalization, centralized billing and a proposal to eliminate manifest passing reports in favor of real-time tracing got decisions and action. The full Steering Committee reviewed, revised and approved COIN's projected plans and timing schedule for 1966 (see chart, p. 17).

Then the COIN Committee made a proposal. Discussed and approved on the spot, the proposal illustrates the careful screening, consultation and power for decision possessed by UP's Steering Committee.

● **Input quality vital.** To educate yard personnel in the use of data transmission equipment for COIN, the

What will COIN

COIN's primary purpose, says UP President Edd H. Bailey, is to furnish information "on a real-time" basis for three basic areas—operating, traffic and accounting.

Input and output devices in freight yards, agencies, dispatchers' offices and traffic offices would collect (for the central computer) and deliver (from the central computer) data essential to efficient movement of cars. Accounting and traffic information would, says Bailey, be a by-product.

Information from waybills of cars entering the UP system will be the basic input of COIN. The information will be captured and sent to the central computer for all later use. Such information will be constantly updated as the car is hauled, switched, loaded, unloaded, cleaned, repaired, weighed

COIN Committee proposed that transceivers in use on the UP be phased out as soon as possible and replaced with the IBM 1050s that could be used with the COIN system. Under the proposal, the 1050s would be used for yard-to-yard transmission of advance train consists the same way as is being done with transceivers, until the time comes for implementing a real-time system. Then, the 1050s could be switched to transmit train and car data to the computer complex and advance consists would be forwarded to destination yards.

The COIN Committee recommended the action for three reasons:

—"Studies show that one of the most critical problem areas in installing a real-time system is in educating yard personnel to assure good input for the system. By replacing the transceivers with 1050s, UP will be able to conduct an educational program in major yards prior to the time for cutover to computer operation.

—"When the 1050s are installed and yard forces trained, UP will be able to evaluate the error quotient—to determine if data will be suitable for computer input or if further action, such as other modes of transmission, is necessary so as to control computer input.

—"With 1050s installed and in operation, it will be possible to test some COIN concepts by initiating interim programs to keep track of special equipment, car tracing, etc., using UP's present computers."

The Steering Committee discussed the proposal and acted—on the spot. The 1050s will arrive on the UP in September.

What's ahead for COIN as the Steering Committee accelerates planning and design?

—Already looming large for the COIN planners is next November's newcomer, the IBM 360/30 computer. It will enable UP to release two 1460 computers and still have expanded capacity to handle additional work that COIN interim programs will develop.

—In June of 1967, another 360/30 will be delivered to UP's EDP Annex at headquarters in Omaha — and the railroad will release a 1401 computer.

—In November of next year, a 360/40 computer, a communication-based computer, will be delivered to UP as COIN gets close to the time for system-wide input.

—In December 1967, an IBM 360/65 computer for batch work and back up for the formidable array of computer hardware at work on COIN will be delivered.

In short, in about a year, UP will have both a formidable computer capability (as advanced, say experts, as any possessed in the rail industry) and also a tripled bill from IBM every month.

"Advances such as COIN promises in operations," says Stanley How, "aren't ever easily accomplished—nor are they cheap. We're quite aware of the high cost of pioneering—other roads have been paying heavily as they head into such programs. We are convinced, however, that the alternative costs—the costs of not undertaking the structuring of such systems—are much higher."

UP's President Edd H. Bailey gives his road's COIN project a higher priority than the diversification efforts so stylish in rail circles nowadays:

"While the UP is very interested in all kinds of diversification, we also feel our primary objective has to be the finest service possible to our freight and passenger patrons.

"It is essential that every UP man—from president to car distributor and traffic solicitor—have current, meaningful information to meet the service demands of patrons. COIN ties our system-wide microwave network to what will soon be the most highly developed computer complex available today. Technology available today will permit us to utilize all data available about operations on a real-time basis. Management decision-making, decisions for operations, market research activities, responsibility accounting and other vital work can be raised to a level that would have been unthinkable just a few years ago. Not only current needs —but future requirements depend heavily upon our ability to handle increasing volumes of work evermore efficiently and quickly.

"We at the Union Pacific generally, and especially our Steering Committee and working committees, are enthusiastically and aggressively unlocking the problems of both technique and hardware that stand between the railroad and a complete operating information system." ■

do for the Union Pacific?

or delivered to a connecting carrier.

Accounting and traffic information delivered by COIN, while considered by-products, will be invaluable. Says UP's President Bailey: "Once waybill information is stored in random-access memory banks, it becomes available for all reporting needs. Data needed for wheel reports, manifests, interchange reports, switch lists, home routes and so forth can be gotten as needed. Since waybill information is up-to-the-minute, freight bills can be prepared immediately upon delivery. Traffic offices can provide current information to shippers and consignees at all times. When the car goes off line or is unloaded, the complete record will be retained for accounting and historical purposes."

Specific operating benefits will include reduced car handling due to lack of home route information, improved train performance by more accurate blocking and reduced paperwork, and better power utilization through the availability of tonnage requirements in both directions as well as data on location, use and scheduling of maintenance of engines. Better control of yard operations, improved car distribution, reduced paperwork on-line and better customer service for cars are other benefits UP expects from COIN.

Additional benefits already visible to UP officers from COIN include:

—Improved financial control with current revenue estimates and per diem estimates.

—Tighter distribution control of cars in short supply.

—Smoother car flow through accurate forecasts of demand and supply.

—Reduction in situations requiring special handling to secure cars, and improving customer service by providing the right car at the right time. Also, a reduction in the incidence of cars being rejected as unsuitable for loading.

—The ability to monitor yard performance in detention, reject rate, and empty moves in and out.

—The ability to evaluate the effectiveness of car assignments through measurement of empty car mileage, turnaround time and open orders for equipment.

Greater equipment utilization, improved service to shippers by reduction of in-transit time and reductions in operating expenses promise to be COIN's primary payoff.

Data-Phone cuts paperwork for suppliers and P&S departments

Instant ordering system, reports the Rock Island, also has been a factor in inventory reduction.

A good number of railroad purchasing agents these days are getting enthusiastic about an "instant ordering" system known as Data-Phone—but nobody's been a more enthusiastic pioneer and promoter than Rock Island's director of purchases and stores, John A. Burnett.

So far as he's concerned, the method's advantages come in bunches —and he has yet to find a disadvantage.

The system itself is a relatively simple one, making use of low-cost Bell Telephone and IBM equipment, and prepunched re-usable cards holding the order data to be transmitted.

● **Turning-on the system.** A typical operation cycle might be started when a storekeeper requests that a certain item be ordered to return the on-hand count to some pre-determined level. The proper pre-punched card—they're furnished by the supplier—is then selected and inserted in the card carriage of an IBM 1001 for transmission. A 15-key panel on the 1001 provides for remote control of the receiving card-punch machine and for insertion of data on date of order and quantity ordered. Actual transmission of the order is effected by use of one switch.

In operation, Data-Phone can transmit and receive numeric or alphanumeric signals at a rate of 20 per second. It converts the data signals into appropriate tones for transmission over telephone lines. And, of course, two-way voice communication is also incorporated in the system.

Burnett moved into Data-Phone quickly, after he came to Rock Island a year ago. But he was moving with a solid background of experience with the system, gained during his previous tenure as P&S director of Bessemer & Lake Erie and a number of associated roads.

● **A growing list.** At Rock Island, he notes, "we made our first installation at Chicago shortly after the first of this year. As of now, we have about 3,500 items on Data-Phone, with six companies. Other companies are indicating interest—and the idea is really growing. I think a lot of this is because companies who don't have it

ORDERING BY DATA-PHONE, a number of roads have found, is fast, accurate, uncomplicated. Here, Leroy J. Sonnen, requisition clerk in the office of Reading's general storekeeper, sets the order process in motion. In addition to Rock Island and Reading, the list of roads moving into Data-Phone includes Seaboard Air Line, Bessemer & Lake Erie and a number of associated lines.

JOHN A. BURNETT, CRI&P director of purchases and stores, sees no disadvantages to the Data-Phone system.

may see where they can be hurt. We started here with a small electrical company, primarily because they could furnish the IBM 1001 ordering equipment without our waiting for it. We installed it and then started ordering from the list they furnished of what they could supply. It has been an excellent arrangement for both of us."

What are the advantages Burnett sees in the system? "The supplier will furnish the cards; he will hold the inventory; and he'll give us next-day delivery. And his prices are competitive. For example, on electrical material, we bid the whole list of stock items and asked our suppliers if they could furnish this material by Data-Phone.

"We find, too, that the suppliers will come in and check our stock. We give them information as to what our usage has been for a year, and they then know how much material to expect us to order. They'll buy back anything that we have that is standard and surplus. We've also found out about a great many items that are no longer being manufactured. Although these items are obsolete, our people weren't aware of it. The supplier tells us and we scrap them.

● **'Paper-free buying.'** "Generally, suppliers on Data-Phone perform an excellent service. They give once-a-month billing—which is a real good thing for our accounting department. And so far as we're concerned, the way we have it set up, it's absolutely paper-free purchasing. The supplier furnishes us an IBM card which is reusable. When we decide to order, we just dial the supplier, shove the card in the machine—and that's the end of it. We have no more paper at all. We note on the back that on a certain date we ordered 25 pieces—and we just hold the card.

"The next thing that happens is that the supplier ships the material. His shipping notice becomes our receiving report. The man who received it signs 'John Doe, 25 pieces received.' He then sends the receiving report to accounting, and accounting holds it for matching with the invoice at the end of the month. There's not a piece of paper in stores at all."

Compatibility in a data-processing sense, Burnett points out, isn't really a factor: "One thing that a lot of railroads are missing out on is this: If a railroad is the most sophisticated computerized railroad in the country, it can use Data-Phone. If it is still having its accounting done by clerks with green eyeshades, it can also use Data-Phone, because all that is needed is a telephone and the 1001 transmitter. The supplier furnishes the cards, so it doesn't matter whether it fits in with the railroad's data system or not.

● **Relief for the buyers.** "Purchasing can still be done this way and save the buyers a lot of clerical effort—because they eliminate the ordering of repetitive items. They're getting this repetitive stuff out into the field. We're releasing ours from the storehouse. The storekeeper will release on a blanket order against the supplier. The buyer is then freed to use his talents in better areas, and yet he's still not abdicating his function. He still determines who the supplier should be, what items he should supply and at what price.

"If a supplier does not remain competitive, or if he is not performing the required service, his card is removed. There is no loss of control of purchases."

The "instant-order" aspect, RI's P&S director points out, also has its advantages from an inventory standpoint: "Our storekeeper in Chicago tells me in some areas he expects to have as much as a 70% reduction in inventory, because of the fast-order, fast-delivery feature. You can even run out of an item. If you can get it the next day, you need not worry."

● **Slow progress.** The only upsetting factor, as Burnett sees it, is the slow-motion approach to more widespread system installations. "More people ought to start pushing it," he declares. "Too often, we resist things just because of our resistance to change—but the companies that are really in Data-Phone are benefiting greatly. The rather small supplier we started out with keeps coming back to the storehouse and going through the things we have there. And he keeps adding items to his list, which is fine with me. He's really entrenching himself."

Is Data-Phone an "everything-good, nothing-bad" proposition? Says Burnett: "I have seen no disadvantages connected with it. A lot of people feel that they lose some control, but I don't think this is valid—because in principle it's the same as any other purchase. If the purchasing department determines who the supplier should be and what items are involved and what price should be paid, I don't think it makes a lot of difference who releases the order. In my case, the stores release the item but I still have control. The stores department reports to me—and if they get over-inventoried, they know that I'll be around to determine why they have a high inventory.

● **'What is it and how does it work?'** "I can see no disadvantages—except that there aren't enough companies in Data-Phone. It's surprising to me how little interest and how little activity there was in the Chicago area—the greatest supply center in the world—until we started actively pushing it. Railroad people would call and ask, 'What is the Data-Phone thing? What are you going to do now?' Suppliers would call. They'd ask, 'What are you talking about? Where do I go to find out about this?' And there was no place for these people to go to see an installation—unless they went to a company that had already installed it."

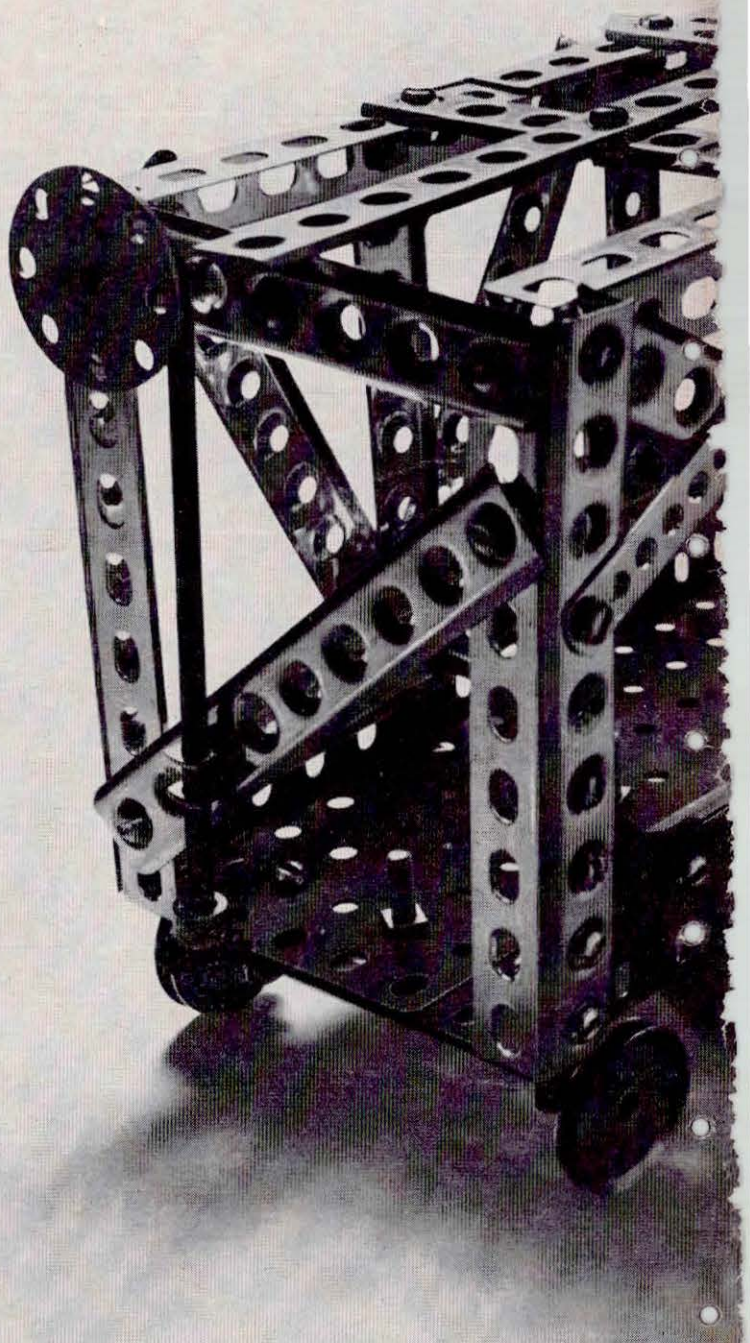
● **Support coming?** Burnett is hopeful that an AAR Purchases & Stores Division committee's investigation of Data-Phone will encourage more railroads to install the system—and it should be noted that the chairman of the Division, W. H. Rose, general purchasing agent of Seaboard Air Line, has also urged greater use of the order-placing device.

'Such a simple thing'

Burnett looks at it this way: "Data-Phone is such a simple thing. I would certainly hope that more roads would go to it—for a strictly selfish reason. As more roads do and as more people get interested in it, suppliers are going to see that they have to adopt it.

"One problem is that we have some good suppliers who just can't get the Data-Phone equipment fast enough. They're having a six-to-nine-month delay, and consequently they're going to be hurt—because we must move now. Of course, we will be able to come back to them whenever they get it and become competitive in that way. And, hopefully, a lot more of our good suppliers will go along with us. They'll see the advantage of it—and, of course, some of them who have been a little more farsighted than others are ahead. And they are benefiting." ■

Circle 11 on reader service card ►



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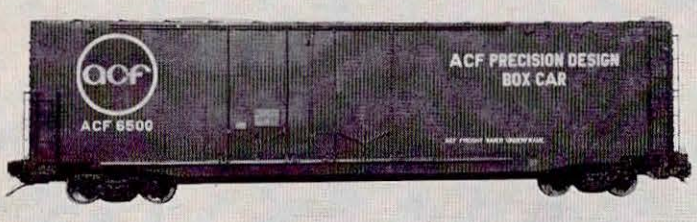

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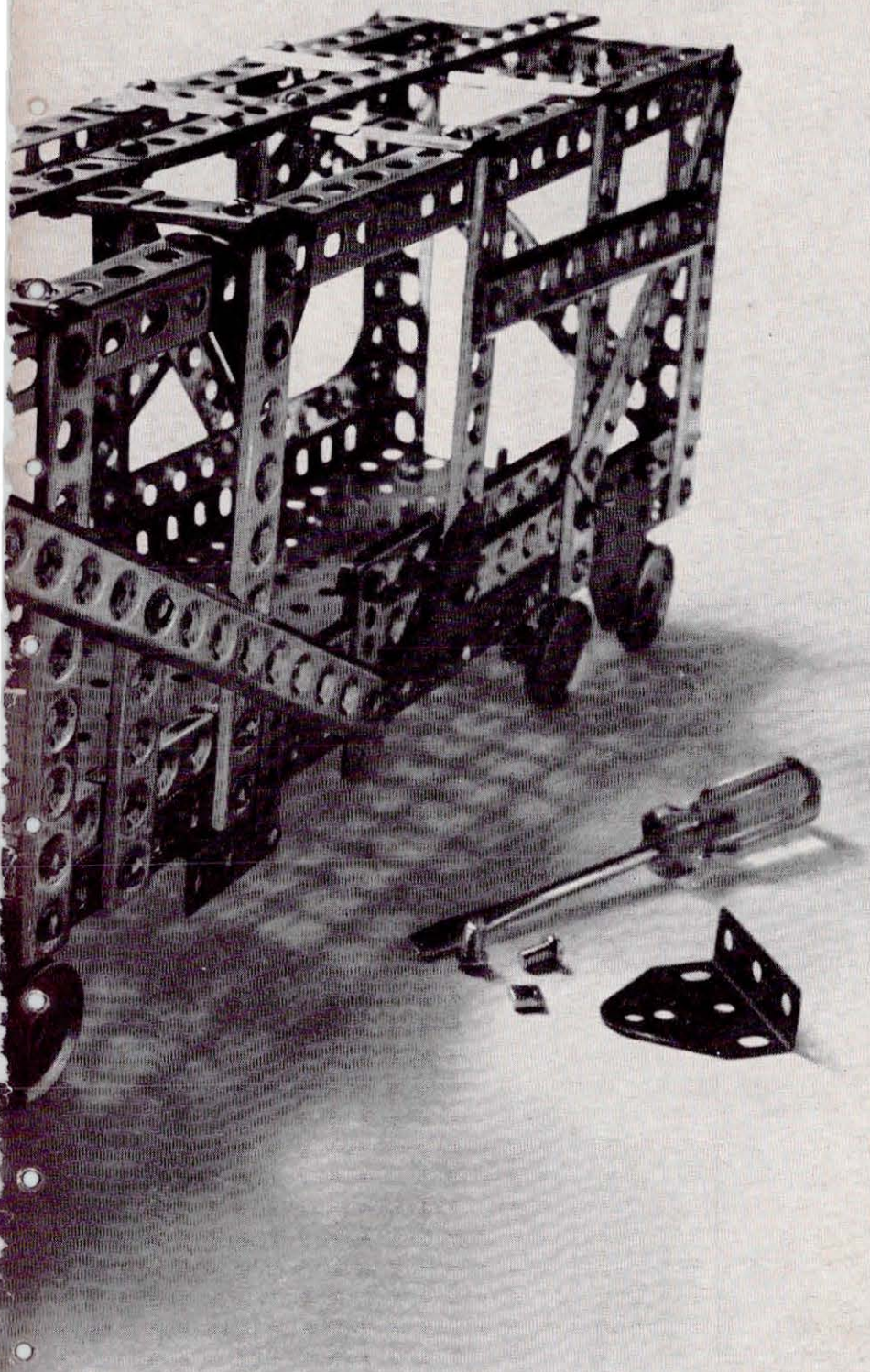

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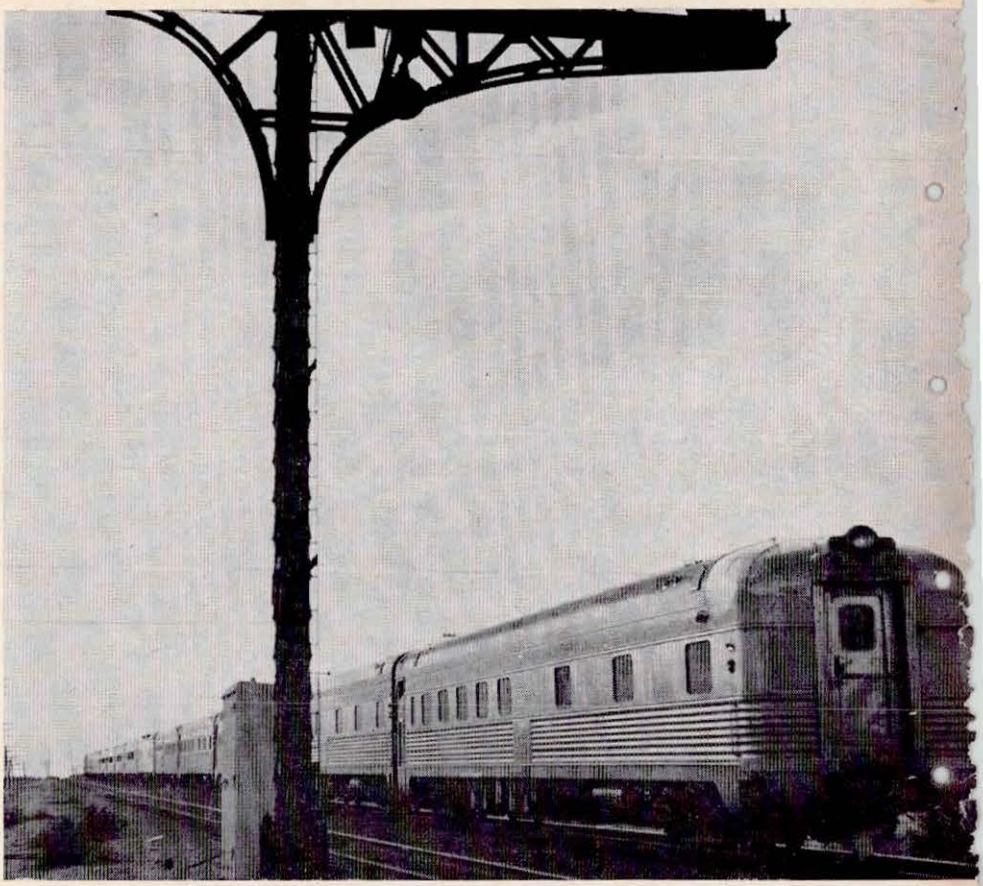
Passengers: Losses hold steady

The big cash drain on the railroads is still passenger service. The AAR released final figures that show losses to Class I roads in 1965 totalled $420.6 million, up slightly from 1964.



The final figures on 1965 rail passenger losses are in from the AAR. With few exceptions, deficits are running pretty much the way they did in 1964.

The AAR's earlier estimate of a total rail passenger-service deficit of $410 million in 1965 has been sharpened somewhat—the official figure is now $420.6 million (RA, May 16, p. 19).

There was little to cheer about on most roads, but at least some factors are moderately consoling:

—Deficits on the whole are holding steady, not climbing.

—As a percentage of net income, deficits are going down.

—All deficit figures are on the fully-allocated-cost basis of accounting by the ICC; on an avoidable-cost basis, losses are smaller.

A few roads showed a small passenger-service profit: the Long Island, Bangor & Aroostook, Maine Central and Northwestern Pacific.

BAR made it on over-the-road service, MC on special trains. In only one of these cases did income exceed $1 million: The Long Island showed just that figure, but as a redevelopment corporation operating under special statutes (it's become state-owned since), its figures are not comparable. In any case, the Long Island wound up 1965 with a $2.5 million deficit.

By region, the western district, including all roads in the mid- and far west, showed the biggest loss: $198.9 million, compared with 1964's $194.1 million. The eastern district, including the Pocahontas region, showed a total passenger service deficit of $133.1 million compared with 1964's $129.2 million; the southern region showed a loss of $88.5 million, compared with $84.5 million in 1965.

● **PRR losses heaviest.** Biggest loser of all was the Pennsylvania, with a passenger deficit of $41.8 million registered in 1965—up an alarming $6.9 million from 1964.

Pennsy officers attribute this to four factors: a diversion of mail by the post office, a decline in passenger travel (especially first-class travel), higher labor costs, and higher purchasing costs for passenger-connected materials.

Next biggest loser was the Santa Fe, with a deficit of $34.4 million, compared with $33.1 million the previous year. Santa Fe, however, reports that name trains remain well patronized; ad campaigns and close working relations with travel agents have helped to keep the image of the "Super Chief," "Chief," and other name trains bright and in the public eye.

● **UP cut losses.** The UP checked in with a loss of $27 million, but this was down $1.6 million from the previous year's loss. CB&Q's loss came to $18.5 million, up $2.8 million from '64. If Ft. Worth & Denver and Colorado & Southern figures are included, the Burlington's loss in '65 came to $21.1 million.

Not far behind was the Southern, with a '65 loss of $17.9 million, compared with $15.8 million in '64; Rock Island, with a loss of $17.3 million, compared with $15 million the year before; and Illinois Central, with a '65 red-ink figure of $17 million—within $10,000 of last year's showing.

The Northern Pacific's 1965 loss on passenger service was $16.9 million, up from 1964's $15.1 million; Great Northern's '65 showing was a $16.8-million deficit, compared with $14.7 million in the previous year.

● **ACL, NYC neck and neck.** Atlantic Coast Line and New York Central were almost exactly tied for tenth place among the big losers: ACL showed a '65 loss of $16.18 million and Central $16.17 million; year-before showings were $15.1 million and $14 million, respectively.

Next in order came Southern Pacific with a '65 loss of $16 million, compared with $15.9 million the previous year; Louisville & Nashville, with a '65 loss of $15.8 million—down by $300,000 from 1964.

Erie Lackawanna clocked in with a loss in '65 of $11.1 million. The loss was down $760,000 from the previous year, and this was due to some extent to commuter contract service performed with state assistance.

The Milwaukee showed a passenger-service loss of $10.8 million compared with the previous year's $11.8 million.

Baltimore & Ohio's figure was almost the same as Milwaukee's in 1965—$10.8 million, but the change from '64 was the other way: the deficit rose $300,000.

Sister-road Chesapeake & Ohio showed a '65 loss of $13.5 million, com-

pared with '64's $14.4 million—a drop of $960,000.

Norfolk & Western showed a loss in '65 of $12.1 million, up $720,000 from 1964; Seaboard's 1965 loss was cut $90,000, from 1964's $10.9 million to '65's $10.8 million.

MoPac showed a rise in the deficit: In 1964 it was $9.1 million and in 1965 $10.5 million. But sister-road Texas & Pacific dropped the deficit figure from $4.5 million in 1964 to $4 million the following year.

New Haven, still under trusteeship, showed a decline in the deficit of $620,000, from 1964's $10.5 million to 1965's $9.9 million. Commuter contracts from the states it serves were once again a factor.

● **Frisco loss down.** Frisco cut its 1965 deficit slightly—from $6.3 million the previous year to $5.7 million. Rio Grande held losses steady around the $4.8-million mark—there was a rise of $21,000 over the previous year's figure.

Reading cut losses by $1.7 million—from 1964's $4.8 million to $3.1 million in 1965; Grand Trunk Western went the same way, from a loss of $3.18 million in 1964 to one of $3.12 million a year later. Richmond, Fredericksburg & Potomac, however, showed a 1965 passenger-service deficit of $3.3 million, up $600,000 from 1964.

Jersey Central, also with an assist from state commuter contracts, brought the '65 passenger deficit down to $2.9 million from '64's $4.1 million.

● **Some slight increases.** Gulf, Mobile & Ohio 1965 losses rose somewhat from 1964's $2.1 million to $2.5 million a year later. Central of Georgia roughly parallelled this with an increase in the loss from 1964's $2.2 million to 1965's $2.5 million.

Kansas City Southern went from a loss figure of $2.3 million in 1964 to $2.7 million in '65; Western Pacific was about the same, with a '64 showing of a loss of $2.2 million and an increase to $2.7 million a year later.

Pennsylvania-Reading Seashore Lines had a '65 deficit of $2 million—up $90,000 from the year before; Spokane, Portland & Seattle went from 1964's loss of $1.8 million to 1965's loss of $1.9 million—a $135,000 increase.

● **Pruning saves money.** Soo Line cut its losses drastically—from $2.8 million in 1964 to $1.2 million a year later—but this was largely through elimination of the bulk of its passenger service. The same is true of the Katy, which went from a passenger loss of $2.9 million to $1 million.

Chicago & North Western cut losses from $2.5 million in 1964 to $1.6 million a year later; while Chicago & Eastern Illinois passenger deficits jumped from $748,000 in 1964 to $1.5 million a year later. ■

WATCHING **WASHINGTON** WITH WALTER TAFT

TAFT

PLAN I CALLED TOO SECRET—Nine western railroads think the time has come for disclosure of financial arrangements under which railroads provide Plan I piggyback services for truckers. The nine are Santa Fe, Burlington, Rock Island, Rio Grande, Missouri Pacific, Cotton Belt, Southern Pacific, Texas & Pacific, and Union Pacific. They have asked the ICC to institute a rule-making proceeding under the Administrative Procedures Act for the purpose of prescribing rules governing the Plan I payments to railroads.

Plan I is ramp-to-ramp rail service for motor carrier trailers which carry freight door-to-door on through bills of lading issued by the truckers. So the rates paid by shippers are the truckers' rates. The truckers pay for the railroad service under contractual arrangements which the Commission considers division agreements. The whole Plan I operation is controversial. The Commission's clearance of it in the 1964 report on piggybacking rules (the Ex Parte 230 case) has been assailed in court by freight forwarders. They contend that the only lawful intramodal piggyback service is Plan V—door-to-door service under joint rail-motor rates.

DISCLOSURE 'VITALLY IMPORTANT'—The petitioning western railroads do not endorse this forwarder position. They argue, however, that Plan I has characteristics which make disclosure of the division arangements "vitally important," not only to carriers who participate in the operations but also to those who compete with the participants.

Plan I characteristics relied on for this argument include the railroads' lack of knowledge of the trailers' contents, payments to the railroads of flat charges unrelated to commodities transported, solicitation of the freight by truckers and publication of the rates in trucker tariffs, and the truckers' choice of using the railroads or providing all-highway service.

SECRECY AIDS TRUCKERS—The petition warns that, if payments to the railroads are unreasonable, the truckers are able to price their own services "so as to take away the traffic of the very railroads which they are using, as well as the traffic of railroads which do not choose to enter Plan I arrangements." As the petitioners interpret them, Commission statements in the Ex Parte 230 report "clearly recognize the potentially destructive effects which may flow from Plan I operations unless they are subjected to certain controls."

The bill of particulars here lists the gateway and routing limitations which would be imposed by the Commission's piggyback rules. Court appeals have held up those rules since they were promulgated in Ex Parte 230 more than two years ago. The gateway limitation provides that truckers and railroads may interchange Plan I trailers only at common points of service. The routing limitation provides that truckers can't use Plan I where it would give them routes less than 85% as long as their all-highway routes.

NEEDED LIKE GATEWAY AND ROUTING RULES—Not to have such limitations would let truckers provide totally new services and thus negate the Interstate Commerce Act's certificate and permit requirements, the Commission said. The petitioning railroads submit that it is "just as important to prevent truckers from providing a totally new competitive service route by reason of unduly low Plan I charges."

Regulatory control over Plan I divisions was suggested in Ex Parte 230 by the Commission's Bureau of Inquiry and Compliance. The Commission rejected the recommendation, but conceded that the time might come when such control would be necessary. That time is now, say the nine western roads. They propose rules requiring the filing for public inspection of all Plan I agreements with all their details.

First 125-ton steel coil cars designed with the USS Family of Stronger Steels

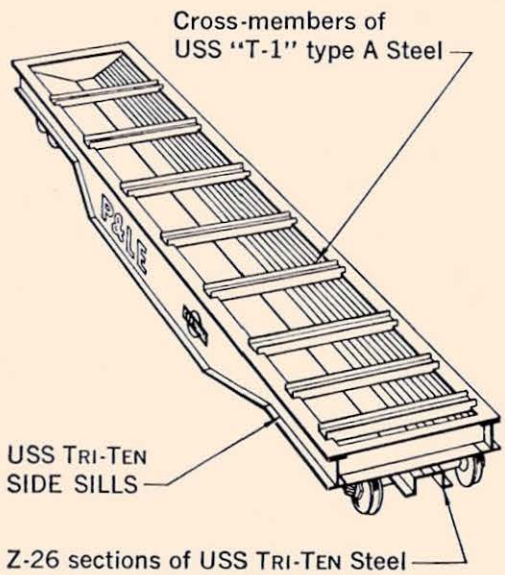
Many cars have been built to carry 100 tons of steel coils, but the car shown here is the first of a fleet of 100 new DF-C* coil cars, with 125-ton trucks built and recently delivered to the Pittsburgh & Lake Erie Railroad by the Evans Products Company, Plymouth, Michigan. The P. & L. E. has already ordered an additional 200 of these cars, 50 with integral, permanently attached, all-steel roofs. By offering special cars tailored to the unusual needs of different shippers, many railroads are able to build rail traffic and increase their revenue in the face of increasing competition.

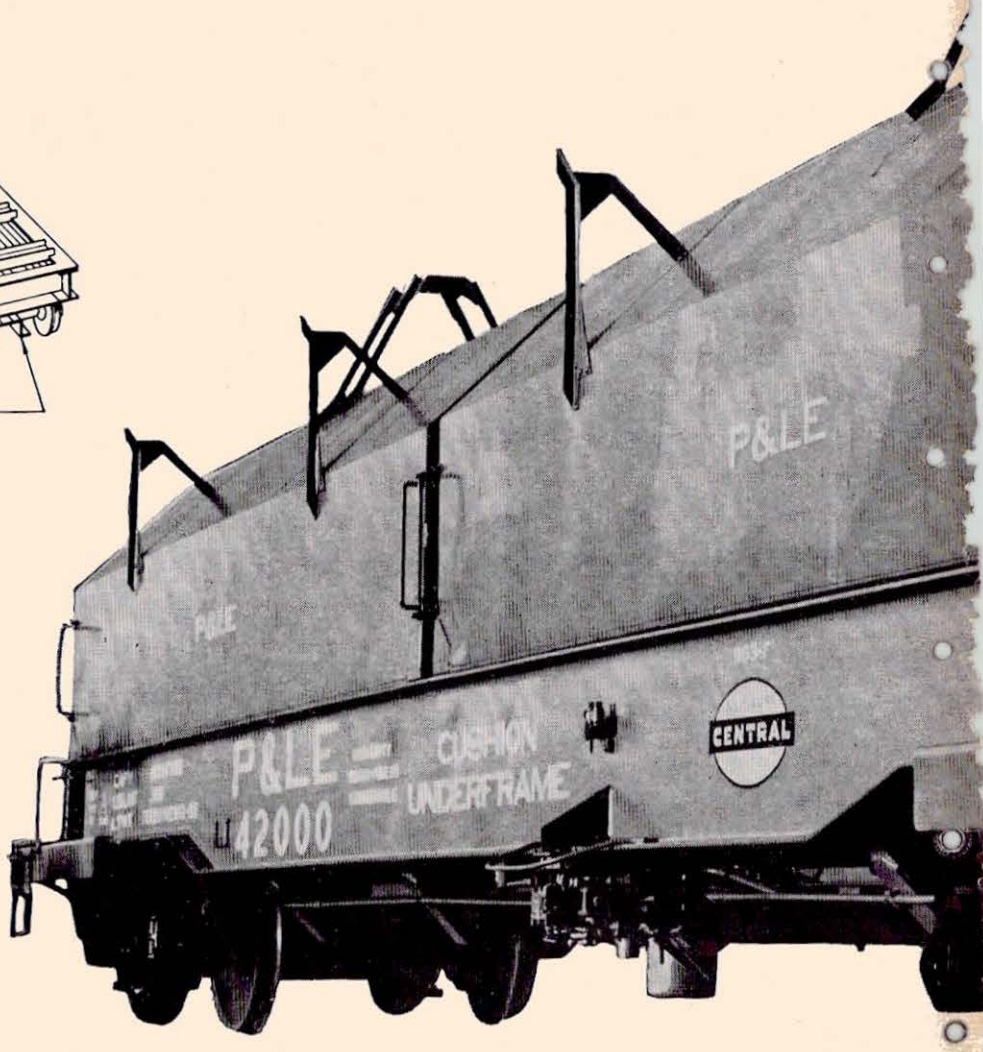
*Trademark of Evans Products Company

Payload has been boosted for these cars because the cargo space for the coils consists of two 26-foot troughs, or a total of 52 feet of available loading space. Stronger USS Steels saved weight wherever they were used.

Evans car designers chose USS TRI-TEN High-Strength Low-Alloy Steel (50,000 psi minimum yield point) for the side sills which are 30" WF sections. This steel saved 2,800 pounds per car in comparison with sills of carbon steel.

The center sill is fabricated from Z-26 structural sections of USS TRI-TEN Steel (ASTM A441). The eight adjustable cross members that hold the coils in place are made of USS "T-1" type A Steel (ASTM A514). This steel, with a minimum yield strength of 100,000 psi, is saving 1,040 lbs. per coil car.





Specially designed 125-ton coil car built of USS TRI-TEN High-Strength Low-Alloy Steel, USS "T-1" type A Constructional Alloy Steel and carbon steel for greater strength, weight reduction and higher payload capacity.

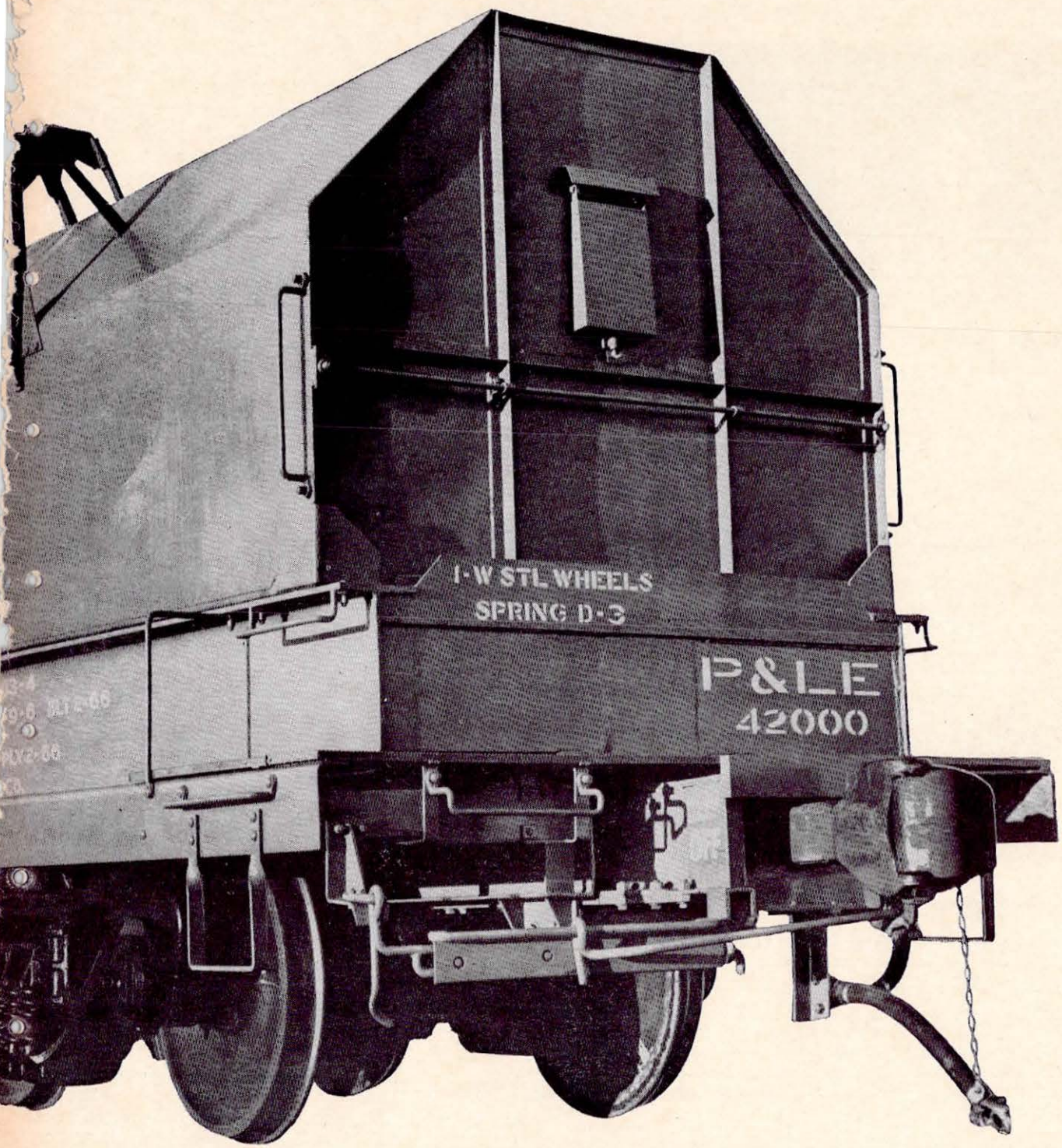
The lift-off covers and miscellaneous crossties and cross bearers were manufactured from carbon steel, which contributed strength with economy in these parts.

The USS Family of Steels permits a designer to create special cars that are lighter, more durable and much more profitable than the temporary conversions that many shippers have been using.

For more information on the USS Family of Steels, call the USS Sales Office nearest you for the assistance of a technical representative, or write United States Steel, Room 9067, 525 William Penn Place, Pittsburgh, Pennsylvania 15230. USS, "T-1" and TRI-TEN are registered trademarks of United States Steel.

This mark tells you a product is made of steel

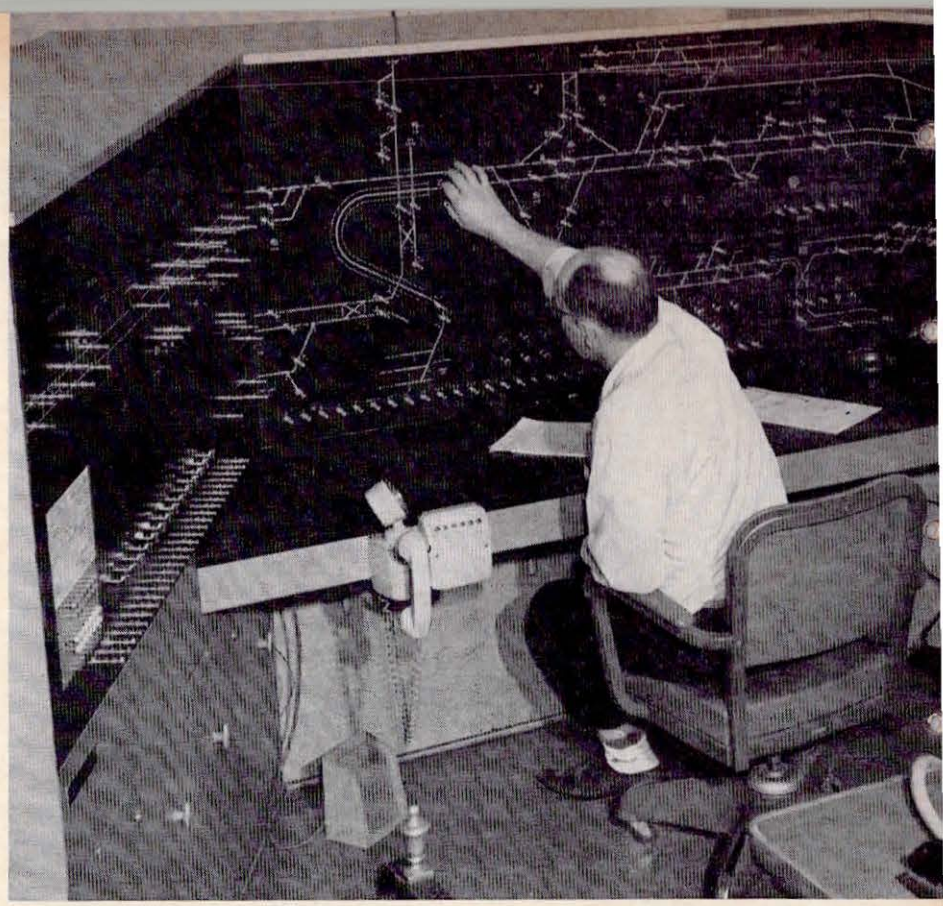
USS United States Steel: where the big idea is innovation

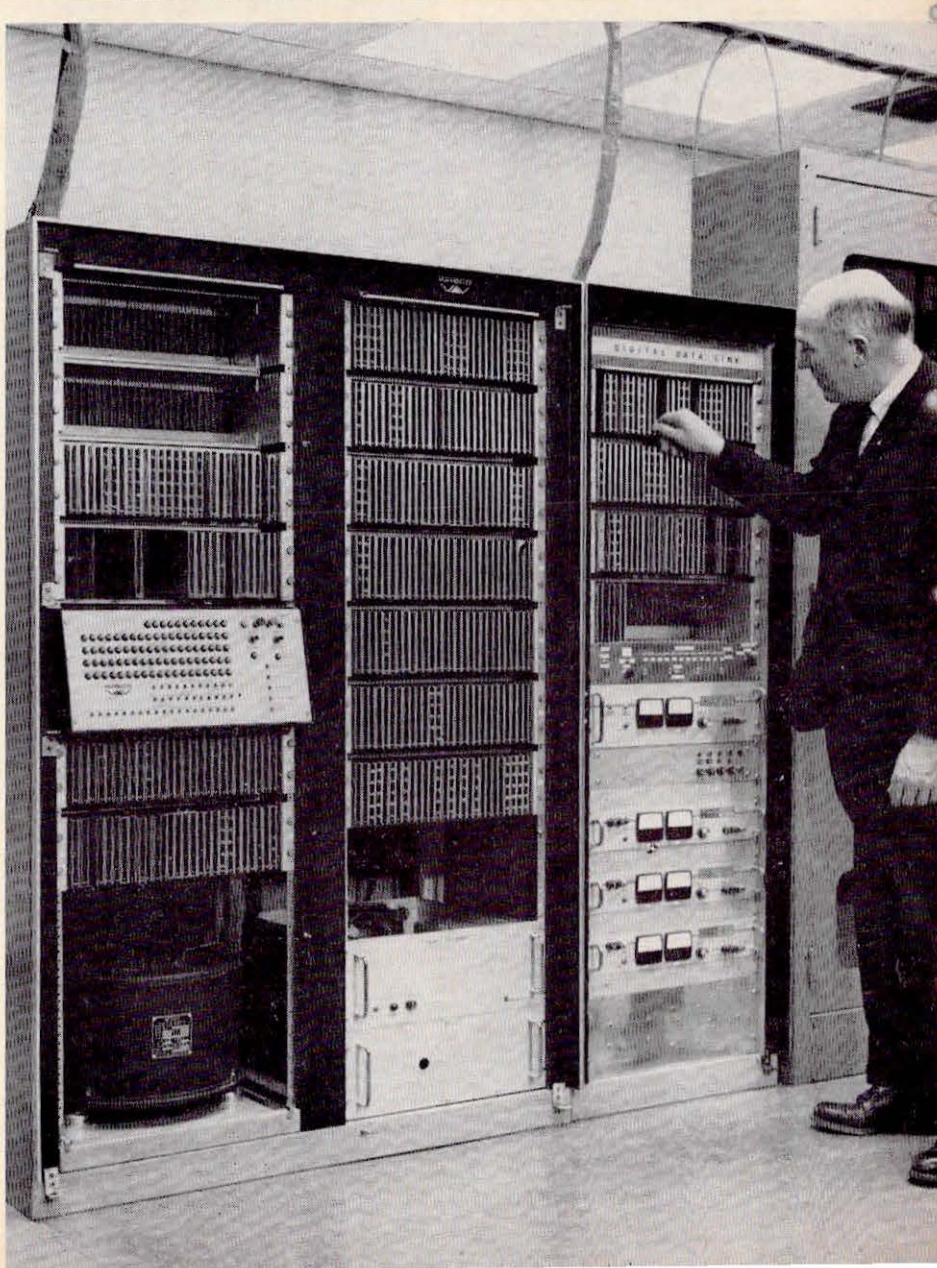


Circle 13 on reader service card

Union RR controls operations with one machine

Brain of the new system is a digital computer which interprets requests of the operator.





Controls for all train movements on Pittsburgh's Union Railroad have been consolidated into one route control machine at the Duquesne, Pa., operating headquarters.

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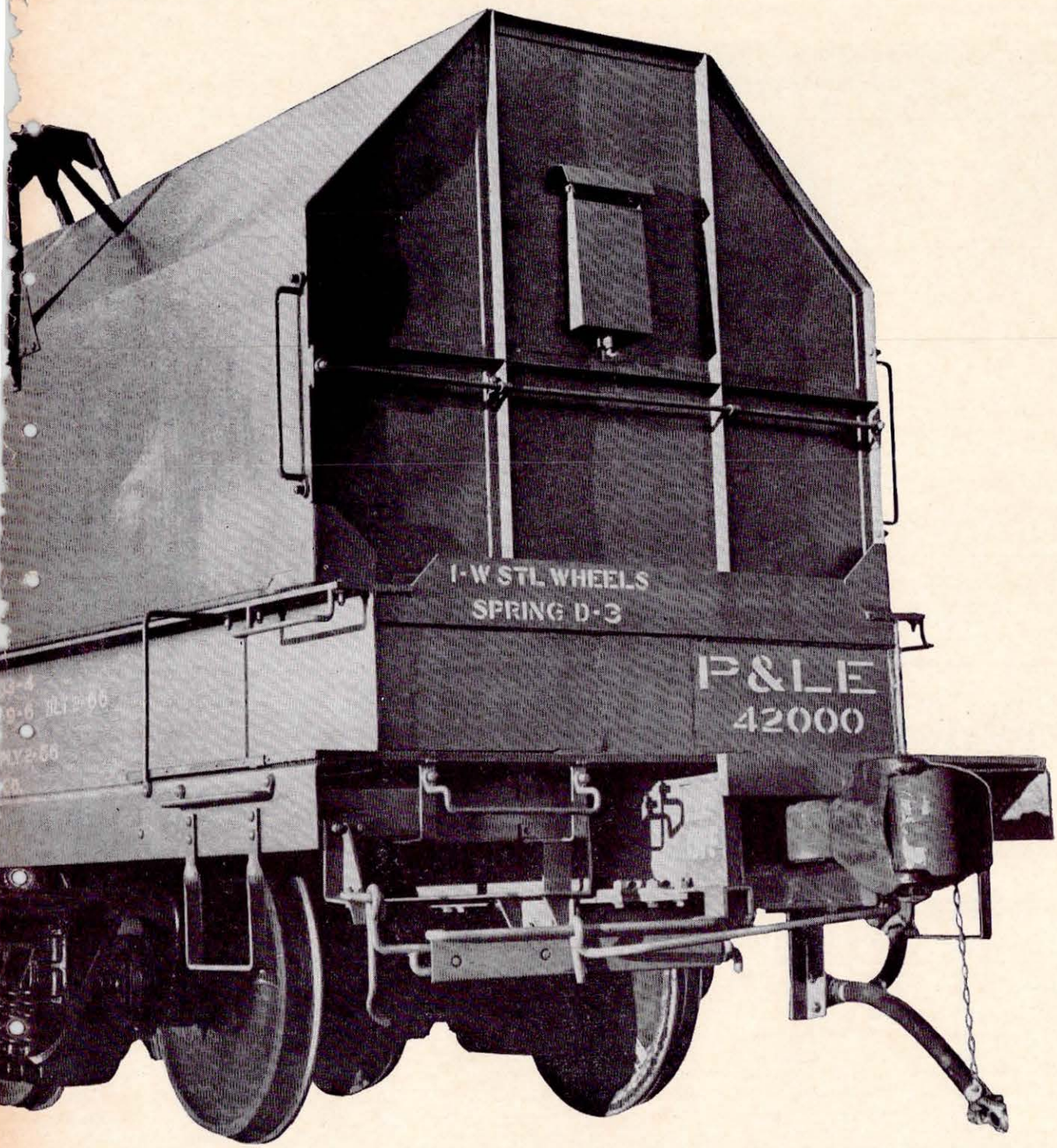


Circle 13 on reader service card

N&W asks PRR merger delay

The road, fearing possible control by the Pennsylvania, is asking the ICC to reopen the Penn-Central hearings. It also charges that PRR tried to influence the N&W-C&O merger vote.

Two of the principal players in the multi-act Eastern railroads' merger drama were fighting over their parts last week.

In a surprise move, Norfolk & Western went to the Interstate Commerce Commission with a petition to reopen the Pennsylvania-New York Central merger case, charging that "a well-organized campaign" preceding a recent N&W stockholders' meeting showed possible PRR power to control N&W.

"The prospect that this vast and powerful system will have the power to control N&W is so appalling and the potential damage to the public interest so great that consummation of the Penn-Central merger is unthinkable without a full hearing to determine the facts," N&W's petition said.

● **The Pennsy replies.** PRR Chairman Stuart T. Saunders was quick with a comeback. "The petition is without foundation and is obviously a delaying tactic," he declared. "The action is particularly surprising since the Norfolk & Western stockholders voted by an overwhelming majority in favor of the proposed Norfolk & Western-Chesapeake & Ohio merger. The vote speaks for itself as to any alleged influence of the Pennsylvania over Norfolk & Western affairs."

Saunders added that the vote of the trustees of PRR's shares in the N&W "likewise shows that they are independent and are not influenced by the Pennsylvania." Two of the three trustees of PRR's N&W stock voted to approve the proposed N&W-C&O merger.

PRR owns 25.5% of N&W's outstanding stock. When the ICC drew up rules for the N&W-Nickel Plate-Wabash unification in 1964, it required PRR to transfer voting rights in its N&W stock to three independent trustees, pending divestiture within 10 years.

In its petition, N&W is asking the ICC to postpone the effective date of the Penn-Central merger and that further hearings be held on three issues. It charges that the portion of the ICC order approving the Penn-Central merger which provides temporary indemnity payments to Erie Lackawanna, Delaware & Hudson and Boston & Maine is unlawful, and that the provision on the possibility of inclusion of those lines in Penn-Central is contrary to the public interest.

Meanwhile, the NYC and PRR are going ahead with plans for special shareholders' meetings to vote approval of conditions of the merger. NYC will hold its meeting July 21 in New York's Hotel Commodore, PRR shareholders will meet in the Sheraton Hotel in Philadelphia on the same day. August 1

ARAM elects new officers . . .

New officers of the Association of Railroad Advertising Managers are pictured following their election at ARAM's 42nd annual meeting at Denver. Left to right, Ralph F. Timbers, manager of advertising, Pennsylvania, Philadelphia, the association's new president; Norman M. Stone, manager of advertising, New York Central, New York, third vice president; Louis H. Coffin, manager of advertising, Frisco, St. Louis, first vice president; and Harold E. Hampton, manager of advertising, Canadian National, Montreal, second vice president.

. . . and presents advertising awards

Winners of ARAM's annual Golden Spike competition are shown with their trophies. Fourth from left is Joel H. Squier, manager of advertising and public relations, the Budd Co., which won the Golden Spike Award. Representing other winners, left to right, are R. L. Krauss, Jr., markets advertising manager, Reynolds Metals Co., merit award; Don Day of Fuller & Smith & Ross, Inc., representing Aluminum Company of America, Silver Spike Award; K. C. Winston, Denver resident salesman for Bethlehem Steel Corp. who accepted a Silver Spike Award on behalf of Bethlehem's advertising division; Donald Dilworth, director of advertising, Deere & Co., Silver Spike Award; and Earl Finberg, manager advertising and public relations, Union Tank Car Co., merit award.

has been set as the effective date of the merger.

• **How it all started.** N&W says PRR attempted to influence stockholders to defeat the proposed N&W-C&O merger when it came up for a vote at the N&W's annual meeting last May.

"This campaign was part of an overall plan by which Penn-Central would preserve a dominant position among Eastern railroads and deprive the Commission of an opportunity to pass on the one proposal that would provide balanced competition in the East," the petition continues.

"To the knowledge of N&W officers, PRR representatives met with the three trustees under the voting trusts covering PRR's shares in N&W and expressed their opposition to the N&W-C&O Plan of Merger. These contacts were permissible under the trust agreements. N&W had the same right to talk to the trustees and, upon their separate requests, did meet with them to state N&W's views on the proposed merger with C&O. While PRR was permitted to talk to the trustees, N&W believes that this access to them was used by PRR in conjunction with approaches to other N&W stockholders in an effort to block corporate authorization of the N&W-C&O merger proposal."

The petition says that the Pennsy also argued that N&W should merge with a western or southern road rather than with C&O.

"The stakes are high," N&W says. "We are now in the final stages of the Eastern railroad merger movement. The next several months will be critical. During this period the public interest clearly requires that N&W be permitted to present to its stockholders any merger or other proposals free from any power of control by Penn-Central. . . Accordingly, this proceeding should be reopened for further hearing to determine the full extent of PRR's activities in connection with the N&W-C&O merger vote and the extent to which PRR's influence over N&W shares would be expanded by merger with NYC. On reconsideration of the report and order herein, the Commission should impose whatever conditions are required to prevent any control or influence by Penn-Central over the voting of N&W shares, including, if necessary, acceleration of the divestiture of these shares."

N&W's action said Saunders, "is regrettable in view of complete cooperation given by the Pennsylvania to both the Norfolk & Western and the Chesapeake & Ohio in working out their respective consolidations and in developing three competitively-balanced systems in the east." ■

LUTHER MILLER

AS THE EDITOR SEES IT...

COME DOWN TO EARTH, MR. T.—Stuart G. Tipton, president of the Air Transport Association of America, is a persuasive and forceful spokesman for the airlines, and we have no real quarrel with either Mr. Tipton or the great industry he represents. But the view from 35,000 feet sometimes gets a little hazy, which may account for some remarks which Mr. Tipton made a couple of weeks ago in Oakland, Calif., at a "Fly Oakland Day" luncheon.

The ATAA president took prideful note of the "staggering" sums which the airlines have spent on new equipment in order to meet peak, as well as average, traffic demands. And he went on to say: "While Oakland and cities like Oakland throughout the country are now reporting adequate air service, the railroads are reporting a critical and growing shortage of freight cars which is adversely affecting the commerce of the country." He mentioned again, toward the end of his speech, the "serious dangers to the economy resulting from under-investment in railroad freight cars."

"Unless airline earnings increase substantially," Mr. Tipton warned his Oakland audience, "there is serious danger of under-investment." In other words—what has happened to the railroads shouldn't happen to the airlines.

FOR THE RECORD—What follows is not news either to Mr. Tipton or to our readers, but it can never be put on the record too often— especially when airlines are chiding the railroads for imperiling the national economy by "under-investment" in equipment.

Item 1: By the end of this year the federal government will have poured $10 billion into the domestic air industry—for airports, airways and cash subsidies to airlines. (How many airplanes, or freight cars, would *that* buy?) The stated objective has been to help a fledgling industry earn its wings.

Item 2: This "fledgling" industry last year earned an 11.8% return on investment—topping the 1951 record of 11% but still not enough, according to Mr. Tipton, to insure adequate capital investment by the airlines. The railroads' rate of return last year was 3.8%—yet they "underinvested" more than $1 billion in freight cars. This year, the railroad industry (with no help from the federal government and no promise that the rate of return will be substantially higher than it was in 1965) will make capital expenditures now estimated at more than $2 billion—and by far the biggest chunk will go for freight cars.

Is anyone still up there on Cloud 9?

Q&A—Q. What city once turned down a federal grant of $146,600 for improvements to its airport—and why? A. Scottsdale, Arizona —because it didn't have an airport.

THAT MAN GENESIS STARTED IT—"Your 'Who Can Top This?'," writes Washington Editor Walter Taft, "drove me to my O. Henry where I found what I was looking for in one of the Gentle Grafter stories entitled 'A Midsummer Masquerade.'

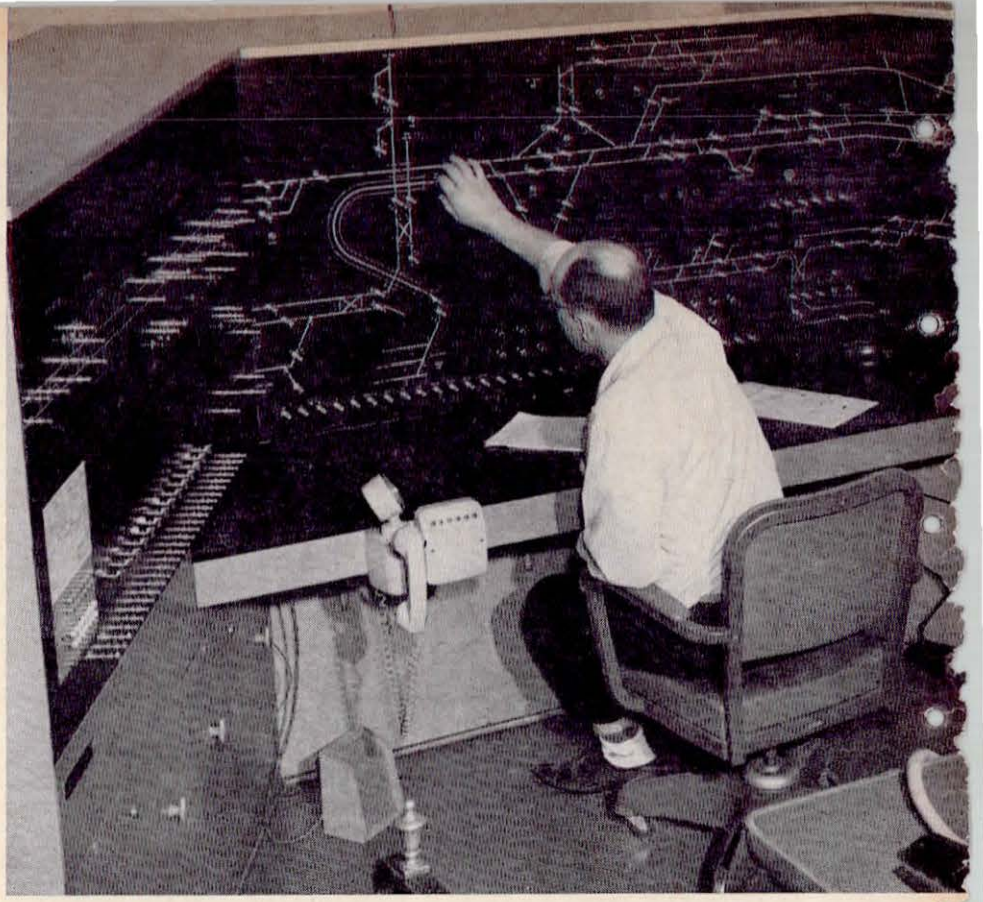
"There one of the characters, Jeff Peters, tells how he and his partner, Andy Tucker, planned a summer vacation and 'struck the general passenger agents of all the railroads for summer resort literature.' Jeff continues.

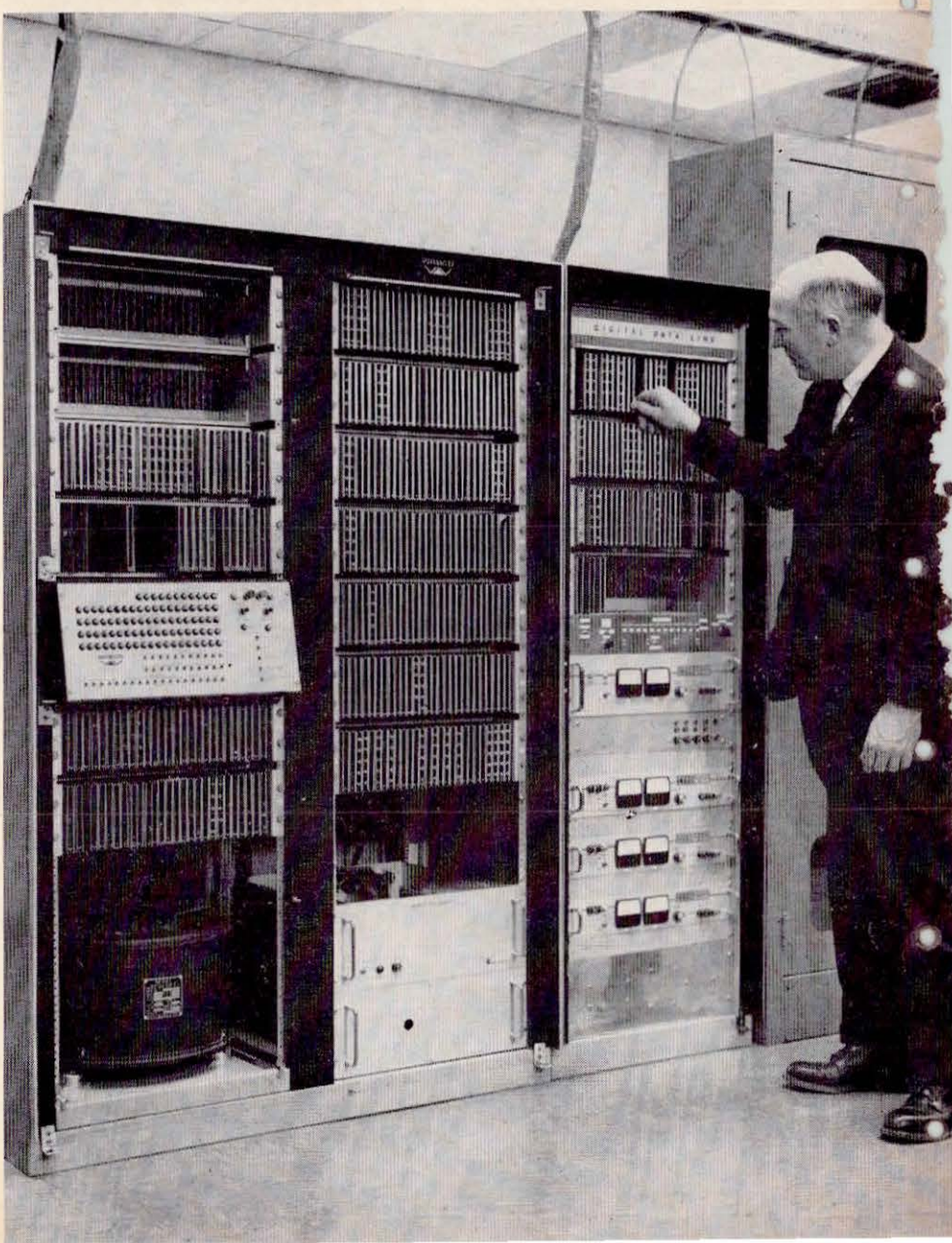
" 'I reckon the first passenger agent in the world was that man Genesis. But there wasn't much competition in his day, and when he said, 'The Lord made the earth in six days, and all very good,' he hadn't any idea to what extent the press agents of the summer hotels would plagerize him later on.

" 'When we finished the booklets we perceived, easy, that the United States from Passadumkeg, Maine, to El Paso, and from Skagway to Key West was a paradise of glorious mountain peaks, crystal lakes, new-laid eggs, golf, girls, garages, open plumbing and tennis; and all within two hours' ride.' "

Union RR controls operations with one machine

Brain of the new system is a digital computer which interprets requests of the operator.



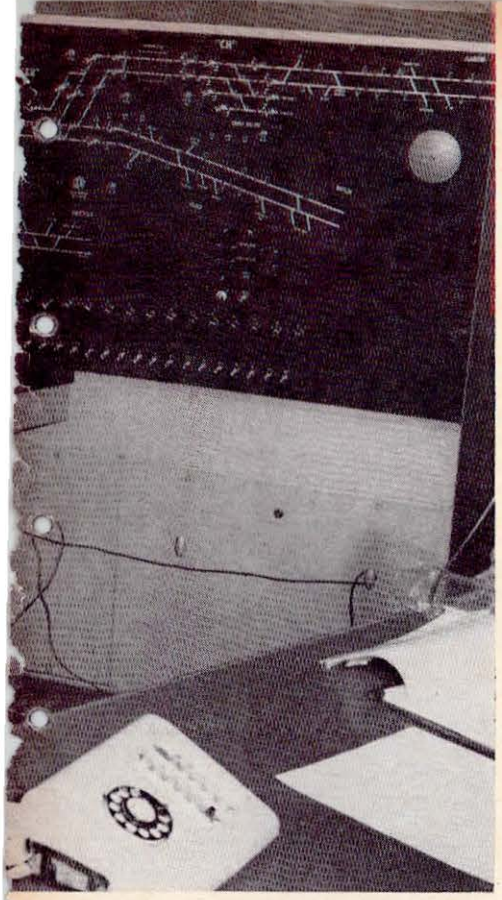


Controls for all train movements on Pittsburgh's Union Railroad have been consolidated into one route control machine at the Duquesne, Pa., operating headquarters.

The railroad serves many major steel plants in the Pittsburgh area with raw materials. System reliability is of great importance because the Union is an integral part of the material-handling process of local steel mills. Delays or breakdowns in operations can have serious effects. Over 400 train movements a day—many on hot-metal or molten-slag runs—are handled from the central control machine.

• **Computer control.** The brain of the new control system is a WABCO-supplied digital computer which acts upon requests of the control machine operator. The computer is only one part, but an important one, of the WABCO Union Switch & Signal Division control system. Also playing a key role is a high speed, solid-state code system. The model 549 system handles controls and indications between the Duquesne office and three interlockings at a rate of 400 bits per second.

The importance of high speed coding, computer logic functioning and push-button route control is indicated by a description of the prevailing conditions. Union Railroad operates 180 trains every 24 hours with hundreds of moves taking place at each of three major interlockings—J, MO and BR. The control machine, containing a track diagram, controls 123 signals, 19 single switches, 2 spring switches and 30



OPERATOR PUSHES BUTTONS to route trains over Union Railroad. More than 400 train movements are made daily. This control machine, linked to a digital computer and high-speed code system, controls 123 signals, 19 single switches, 2 spring switches and 30 crossovers. The operator also has release-control of 28 electric locks on hand-throw switches.

DIGITAL DATA LINK handles controls and indications between the computer and the field equipment at the rate of 400 bits per second. Two cabinets at the left contain the computer and its associated memory drum and logic units. A conventional relay system would take 10 times this much space.

crossovers. Also, the operator has release-control of 28 electric locks.

• **Pushbutton control.** To line up a route for a train move through an interlocking, the operator need push only two buttons. Under the former system of operation, the interlocking operator had to operate a minimum of 5 levers to accomplish the same result. Now he presses one button at the home signal where the train is to enter the plant. Following this, white lights will be illuminated on the track panel to indicate all possible routes from the one entrance.

The operator selects the route by pressing an exit button at the exit signal where he wants the train to leave the interlocking. The computer and its associated equipment send out appropriate controls to line switches properly for the route selected. A line of white lights on the control machine indicates the selected route. When it is safe to do so, the signals are cleared in the field and green indication lights are displayed on the control machine. All switches and signals in the route between entering and leaving signals are operated without action being taken by the operator.

• **What the advantages are.** The superiority of computer control over conventional relay control now used in route-type machines lies in the former's speed of operation, flexibility, expandability, less maintenance and ease in making changes. Making changes, says William Martin, Superintendent Signals and Telephones, is relatively easy with computer controls. When track and signal changes are made, it is necessary only to change the program concerned with that portion of the system. There are no extensive wiring and circuit changes that are required with a relay system. The computer, it should be pointed out, does not replace the relay controls and safety circuitry in the field —switch and signal controls.

Another major advantage of the new control system is that one operator can move a train from one end of the railroad to the other by pushing only six buttons. Formerly, such a move required three operators at three interlockings moving 14 to 38 levers, depending upon the routes selected in multiple-track territories. Not only are there economies of consolidating controls, but handling trains through interlockings is greatly improved.

• **Continuous scanning.** With the new computer control system field conditions are continuously scanned. Thus, any changes—switch position, controlled signal condition (clear or stop) or location of a train—are instantly reported to the control machine. Train locations are pinpointed to specific automatic signal blocks.

This precise spotting of trains is considered important by Union Railroad officers because of the number of trains on hot-metal or molten-slag runs. These trains, varying from two to four cars and from 500 to 1,500 tons, must be kept moving. They are priority runs that can't be delayed. It is important for the operator to know the locations of the trains at all times.

At the new Duquesne office, the control machine is on the second floor. The train-movement director is in the same room facing the machine. He has telephone and radio contact with train crews and yardmasters from North Bessemer south to Clairton with branches west to Mifflin and West Homestead. The train-movement director supervises the control machine operator.

• **Fleeting controls, too.** To improve operations further, fleeting controls are provided for certain home signals (controlled signals). Unlike conventional controls whereby a signal goes to the stop position following a train move past it, the fleeting control will allow the signal to automatically clear behind the train as conditions warrant. For example, when the train has cleared one block beyond the signal, it will go from red to yellow. When two blocks are clear, it will go to green. When a signal is on fleeting control, the operator need not reclear it (i.e., press the signal button) after each train.

The fleeting controls applied in the Union Railroad installation are another means to insure that the operator does not forget to clear for a hot-metal run at those controlled signals where several trains may be following each other.

The computer is positioned between the control machine and the 549 code system. The code system links the computer to the field station equipment at the interlockings.

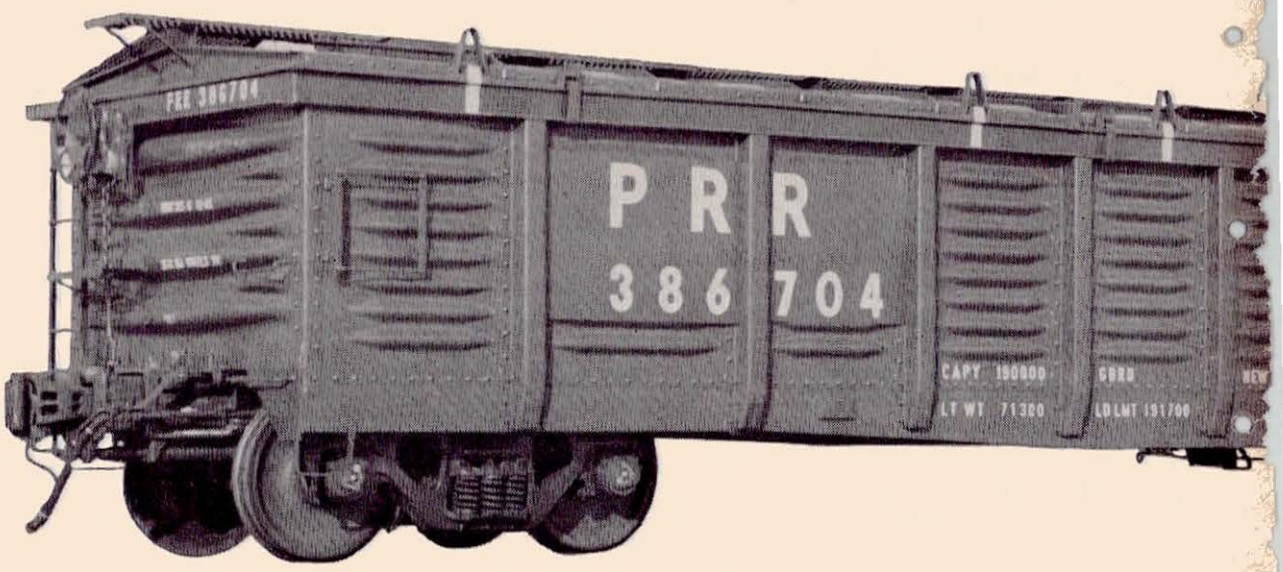
• **Computer's role.** A brief description of the computer's role and function follows: The operator presses a button on the track diagram panel at the signal where a train is to enter an interlocking or the route to be set up. The computer accepts this request. By its programming and the continuous scanning of field conditions, computer logic equipment directs that white lights be illuminated on the track diagram to indicate all possible routes from the entrance signal selected by the operator. Only those routes free of trains or not already lined up for train moves will be so indicated on the control machine track diagram panel.

Next, the operator pushes the exit button at the signal where the train is to leave. Thus, he has told the computer where the train will enter the route and where it will leave. The computer will then determine the best or preferable route to be used between the entrance and exit signals. If this route, or part of it, is not available (another train, for example, may be using it), the computer selects a second route. A table of route selections is prepared and put into computer memory, along with such other information as location of switches, signals and electric locks.

• **Selected route is lighted.** When a route is chosen by the computer, it will so indicate to the operator by extinguishing all white lights not in the route, and at the same time will turn on all white lights in the selected route. However, before this can occur, the computer will send control information to the 549 code system for transmission

(Continued on page 37)

"Do Standard components



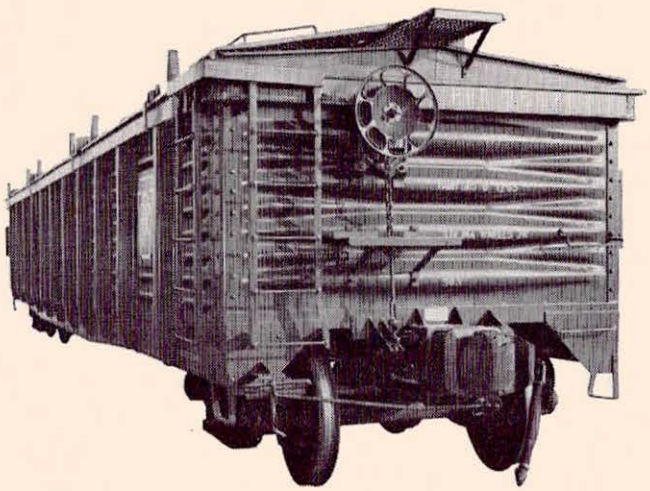
No, pretty much on the sides

Standard corrugated sides, pictured on new gondola. This modern, covered gondola, PRR-designed, provides all-weather protection for the transportation of various steel commodities.

If your railroad cars have sides, ends, roofs or floors—if you intend coupling them to other cars—then Standard components can save you money. The proof is easy to have: just phone your Standard representative.

go everywhere?"

...the ends ...and the roof



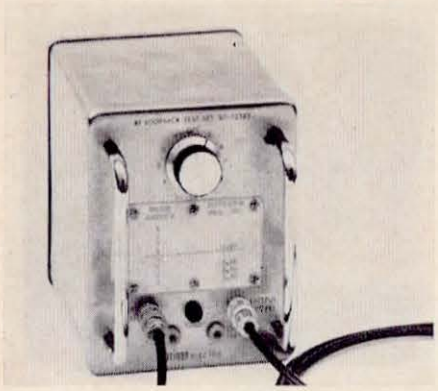
Above: Standard 3-piece removable roof, showing inspection hatch.

Left: Standard dreadnaught steel ends and coupler centering device.

STANDARD RAILWAY EQUIPMENT
division of STANRAY CORPORATION
Hammond, Indiana • New York • Chicago

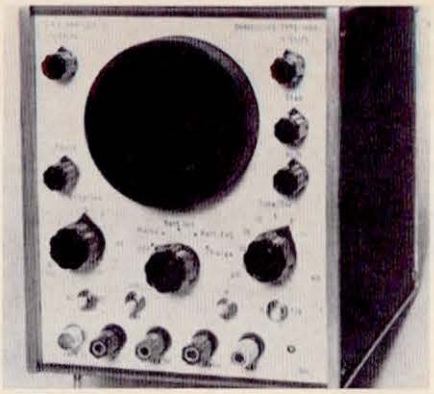
Circle 12 on reader service card

NEW **PRODUCTS** REPORT



Test Set (RA-1)

A new RF loop-back test set is for use with either point-to-point radio systems or mobile base stations. The portable set translates RF energy at a radio transmitter output frequency to the input frequency of a companion radio receiver. Thus it allows checks of transmitter and receiver transmission levels and equipment noise on a radio terminal from one end, eliminating the need for a man at each end to perform routine lineup tests. *Farinon Electric.*



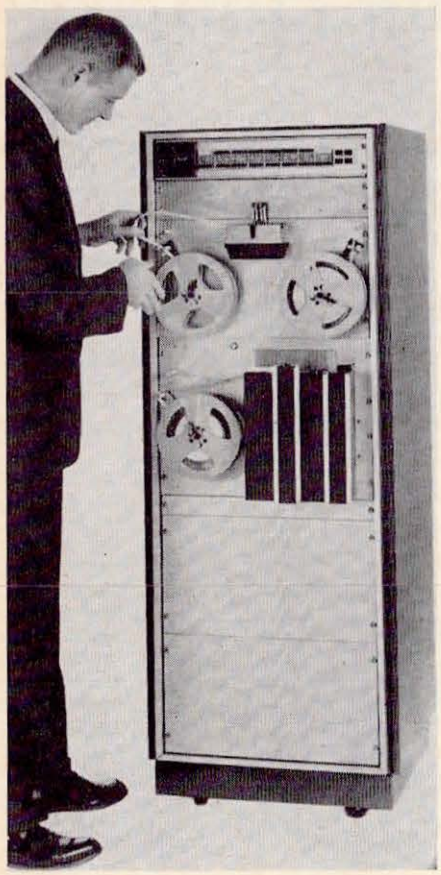
Oscilloscope (RA-2)

A new model 148A solid-state oscilloscope with a 3-inch flat face cathode ray tube and self contained batteries permits measurements to 4 million cycles per second with a sensitivity of 0.01 volts per division ac or 0.05 volts per division dc. Response at 1.5 million cycles per second is 6 divisions. External horizontal input, dc to 120 kilocycles and Z modulation terminals are provided. The unit measures 6 by 7 by 9½ inches. *Edwin Industries Corp.*

Insulation Tester (RA-3)

A new multi-purpose Major Megger tester that meets most insulation and continuity test needs is available.

Two models are available: the standard instrument which has four voltages 100 to 1,000 dc and 20 to 200 megohms with 0 to 100 ohms on the continuity range. The other, a high-range model with discharge, has up to 1,000 volts dc and up to 2,000 megohms and a continuity range of 0 to 20 ohms. *James G. Biddle Co.*



Data Transmission (RA-4)

The new system 311 transmits data at a rate of 1,200 words per minute over conventional telephone circuits. Each 311 terminal incorporates a paper tape perforator, reader and electronic logic. It can be used either to send or receive over telephone circuits, and recognizes transmission errors. The 311 system automatically causes the data to be re-transmitted correctly. The punched paper tape can be prepared by a business machine. *Tally Corp.*

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6/20/66

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MARKET OUTLOOK

Carloadings

Loadings of revenue freight in the week ended June 11 totaled 621,155 cars, the Association of American Railroads announced on June 16. This was an increase of 73,463 cars, or 13.4%, compared with the previous week; an increase of 16,812 cars, or 2.8%, compared with the corresponding week last year; and an increase of 32,275 cars, or 5.5%, compared with the equivalent 1964 week. Ton-miles generated by carloadings in the week ended June 11 are estimated at 15.3 billion, an increase of 8.1% above the corresponding week of 1965, and 4.3% above the 1964 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday June 11

District	1966	1965	1964
Eastern, including Allegheny and Pocahontas ..	247,266	246,076	239,686
Southern	113,312	110,861	107,369
Total Eastern and Southern Districts	362,578	356,937	347,055
Northwestern .	95,256	90,229	82,492
Central Western	121,626	116,034	116,487
Southwestern .	41,625	41,143	42,846
Total Western Districts	258,577	247,406	241,825
Total All Roads	621,155	604,343	588,880
Commodities:			
Grain and Grain products	57,760	54,215	54,166
Livestock	1,390	1,284	1,932
Coal	121,220	116,414	113,385
Coke	8,678	8,521	8,408
Forest Products	40,346	37,031	37,598
Ore	62,397	57,053	53,301
Merchandise l.c.l.	6,173	9,171	12,516
Miscellaneous .	323,221	320,655	307,574
June 11	621,155	604,343	588,880
June 4	547,692	530,484	667,170
May 28	611,737	600,776	561,860
May 21	609,325	598,678	579,981
May 14	611,161	593,858	576,342
Cumulative total, 23 weeks ...	12,820,641	12,650,277	12,345,667
Estimated revenue ton-miles (billions) 23 weeks	320.9	298.8	286.4

PIGGYBACK CARLOADINGS.—U.S. piggyback loadings for the week ended June 4 totaled 19,172 cars, carrying 32,032 trailers, compared with 17,346 cars, carrying 27,860 trailers, in the corresponding 1965 period. Loadings for 1966 up to June 4 totaled 469,372 cars, carrying 775,835 trailers, compared with 422,351 cars carrying 679,641 trailers, in the corresponding period of 1965.

IN CANADA—Carloadings for the ten-day period ended May 31 totaled 112,448 cars, compared with 87,009 for the previous seven-day period, acording to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
May 31, 1966	112,488	35,712
May 31, 1965	88,898	34,665
Cumulative Totals		
May 31, 1966	1,648,279	556,442
May 31, 1965	1,505,636	526,138

FREIGHT TRAIN CARS

► *Canadian National.*—Has ordered 650 freight cars at a cost of $10.5 million. Hawker Siddeley of Canada Ltd. will build 350 90-ton gondolas, most of which will be assigned to service in Canada's steel industry. Delivery will be in October. Vancouver Iron & Engineering Works will build 100 70-ton steel covered hopper cars. Delivery will begin in August. The cars will be used to transport bulk material. Most of them will operate in western Canada. Marine Industries Ltd. will build 200 70-ton steel flat cars equipped with wraparound bulkheads. Delivery will begin in August.

FOREIGN

► *Korean National Railroad.*—Ordered 49 1,050-hp, DL-532 diesel-electric locomotives from Alco, at a cost of more than $6.8 million. The order is being financed with a loan from the Agency for International Development. Delivery will begin late this year.

► *Mexico.*—Will invest $491.6 million in railway improvements during the period 1966-1970. The five-year plan calls for expenditure of $248 million on cars and locomotives and $243.6 million on roadway, communications, stations, shops, and social service facilities.

NEW FACILITIES

► *Bessemer & Lake Erie.*—Plans the second major extension in less than a year at its Coal Storage and Transfer Terminal at Conneaut, O., on the northern end of its mainline on Lake Erie. The ground storage capacity of the terminal will be increased from the present two million tons to more than three million tons by late summer. Additional coal-handling equipment will be installed to increase the effective boat-loading rate to more than 5,000 tons per hour.

► *Reading.*—A two-story office building and a modern trucking terminal with 44 loading bays have been leased by the Reading Transportation Co., wholly-owned trucking subsidiary of the Reading. The new facilities, which will provide more space for motor carrier and piggyback operations, are in the Bridesburg section of Philadelphia.

► *Illinois Central.*—Authorized 180 miles of microwave between Jackson, Miss., and Mays Yard, New Orleans, La. A ten-fold increase in communications capacity is expected from the $700,000 project. IC's microwave system is expected to replace original wire lines destroyed by Hurricane Betsy last September.

► *Union Pacific.*—Will build a new classification yard at North Platte, Neb., at a cost of approximately $10 million. The yard will be built over a three-year period near the site of UP's present North Platte yard, which will be continued in service. Present plans call for the new facility to have 60 classification tracks—45 to be built in initial construction and 15 to be added later. UP President Edd H. Bailey said his road "has stepped up freight schedules considerably since the old yard was opened in 1948, from seven- to four-day delivery on transcontinental freight traffic. This new yard will allow us to maintain this stepped-up pace and serve our customers by maintaining our dependability with greater efficiency." Timetable for construction, UP said, will depend on the "success of current studies and land acquisition."

YOU OUGHT TO KNOW

Cost of supplies rises: Prices paid by railroads for fuel, materials and supplies rose slightly during this year's first quarter, but remained below the prices of 1965's first quarter. The AAR's index for April was 102.9, compared with January's 102.2 and April 1965's 101.6. Largest relative increases of the January-April period were in prices of forest products. That index rose from 110.6 to 113.0. The indexes are based on the 1957-1959 averages as 100.

ID, north and south: Two Chicago-based railroads, Illinois Central and Milwaukee, are moving ahead with industrial-development work—at opposite ends of mid-America. IC will acquire and build about 30 miles of line near Vicksburg, Miss., to serve a $60-million International Paper Co. mill now under construction. Biggest part of the job will be construction of a new 26-mile railroad between Redwood and a point near Yazoo City, Miss., to connect two districts of IC's Memphis Division. Cost of the entire project to IC will be about $3,250,000. Meanwhile, Milwaukee is getting set to serve a new 352-acre industrial district at Itasca, Ill., 24 miles northwest of Chicago. The development, a project of Central Manufacturing District, is on Milwaukee's mainline, five miles from Bensenville Yard.

Help for the rice farmers: Not exactly a unit train, but still an impressive sight were 47 flat cars loaded with rice combines (two per car) which moved out last week over several western railroads from the J. I. Case Co. plant at Bettendorf, Iowa. The move originated on the Milwaukee, and the combines—representing a week's output at the Case plant—were delivered to Louisiana and Texas points via Kansas City Southern and KCS-Southern Pacific.

AARS elects Mowen president: The American Association of Railroad Superintendents elected W. F. Mowen (Western Maryland superintendent at Cumberland, Md.) president, succeeding CSS&SB Superintendent W. W. Weber, who had been president of AARS 1965-66. The group also elected: D. E. Parks (Great Northern Assistant Superintendent at Whitefish, Mont.) first vice president; J. A. Bonelli (Pennsylvania manager of safety) second vice president; E. B. Hardwig (Alton & Southern manager of operations) third vice president, and J. D. Shea (Milwaukee general superintendent at Milwaukee, Wis.) fourth vice president.

AST&T western meeting: Alan S. Boyd, Under Secretary of Commerce for Transportation, and ICC Commissioner Virginia Mae Brown, are just two of the leading speakers slated to appear at the June 24 western transportation conference of the American Society of Traffic and Transportation in Oakland, Calif. Others include Mayor John Reading of Oakland, AAR executive vice president & general counsel Gregory S. Prince; and representatives of truckers, barges and shippers.

Gains for the BLF&E: Active membership of the Brotherhood of Locomotive Firemen & Enginemen in the United States and Canada is reported as 39,000—and, says BLF&E President H. E. Gilbert, "this represents a net gain of 1,100 new members in the U.S. alone during the first five months of 1966." The figures, Gilbert added, are based on per capita payments to the AFL-CIO and the Canadian Labour Congress.

Space still available: The 1967 Combined Railway Suppliers' exhibition looks like a winner already—even though the exhibit itself is still more than a year away. As of June 1, applications had been received to cover about 70% of the space available at the '67 Chicago show. And the suppliers' group was urging companies which have not made reservations to do so by Oct. 1, 1966. Allocation of exhibit locations is scheduled for later in October.

Truck tonnage: Intercity truck tonnage in the week ended June 4 was 13.5% below that of the previous week of this year, and 6.0% ahead of the volume in the corresponding week of 1965, according to American Trucking Associations.

Current statistics

Net income	
3 mos., 1966	$172,000,000
3 mos., 1965	123,000,000
Carloadings, revenue freight	
23 wks., 1966	12,820,641
23 wks., 1965	12,650,277
Freight cars on order	
May 1, 1966	59,415
May 1, 1965	35,774
Freight cars delivered	
4 mos., 1966	29,303
4 mos., 1965	26,138
Serviceable cars	
May 1, 1966	1,410,539
May 1, 1965	1,401,391

(Continued from page 31)

to the field locations. In effect, this information will direct switches to be controlled to their proper positions, either normal or reverse. When switches are properly lined and locked, the indications will be returned, via the code system, to the computer. This information will be sent to the control machine to light appropriate switch indication lamps.

Because of continuous scanning and the high speed of the code system, switch position lamps on the control machine panel will flash while a switch is in transit from one position to another. It is at this point in time that the white lights showing the route selected appear on the control machine.

Once the computer knows that switches for the route are lined and locked, it sends out controls to clear the appropriate signals. Indications will be returned to the computer when the signals are cleared. Green indication lamps will be lighted at signal locations on the control machine panel. All signals, including entrance and exit signals, will be cleared. For example, to route a train from Clariton (signal 300) to J interlocking south (signal 208), the computer control would also clear three intermediate controlled signals and position two crossovers and a single switch. All these switch positionings and signal clearings are accomplished by having the operator press only the entrance signal button (300) and the exit signal button (208).

To assure continuity of power to the computer, three separate power feeds are brought into the computer room at the Duquesne office. The computer, including its memory drum and associated logic modules, fits into three cabinets totaling 4 feet wide, about 2 feet deep and 6 feet high. A conventional relay system would take about ten times that space.

● **Future of computer control.** System operation has been most satisfactory notes Signals and Telephones Superintendent Martin. He says that, for the future, the computer control affords the possibility of scheduling trains over the system by punched card input. Couple this with automatic car identification and a train would identify itself to the computer, which would take over control of lining routes for the train. When the train arrived at its destination yard or industry plant, the ACI scanner would so notify the computer.

An operator would probably be required to handle such things as switching moves and irregular movements. But regular train moves could be handled without operator action, thus freeing his time for other train moves. ■

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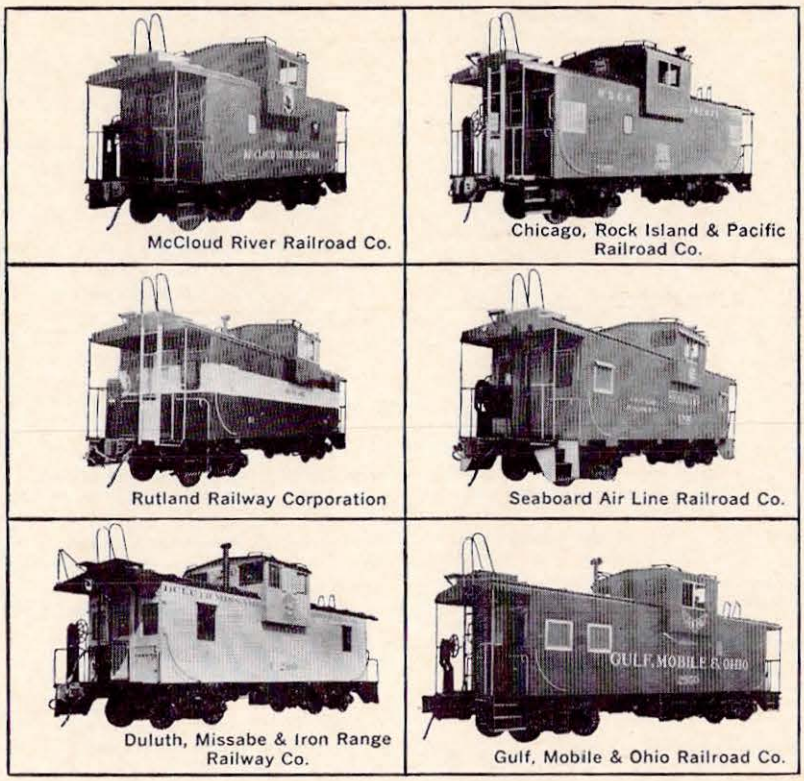

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PEOPLE IN THE NEWS

CANADIAN NATIONAL.—Organizational changes in the passenger sales and services have resulted in the following appointments: **Gilles T. Tremblay,** manager—marketing, appointed general manager—marketing. **Garth C. Campbell,** manager—passenger service development, appointed general manager—passenger services. **P. George Edwards,** manager—passenger sales, named general manager, field liaison.

Peter A. Clark appointed superintendent—express freight, Atlantic region. Since 1964 Mr. Clarke has been CN's special projects co-ordinator for the Cabot Strait service, acting as liaison officer between all departments of government, consultants, contractors and others engaged in operations to improve CN's service to and from Newfoundland.

Allan W. Raftus, assistant manager of customer services, passenger sales department, Montreal, appointed manager passenger sales, Maritime area.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—Roy H. Jones, assistant vice president—investments, has announced the following appointments: **John V. McHugh,** director of corporate insurance, and **Clarence D. Dawson,** director of property insurance.

CHICAGO & EASTERN ILLINOIS.—Roy F. Martens, assistant comptroller, named comptroller.

DENVER & RIO GRANDE WESTERN.—R. Knox Bradford, senior vice president, retired.

R. F. Millsap appointed district freight and passenger agent, New Orleans, La., headquarters St. Louis, Mo., succeeding **E. C. Nielsen,** resigned. **Dale F. Machart** appointed equipment coordinator—traffic, Denver, Colo.

ERIE LACKAWANNA.—William R. Fletcher appointed district freight claim agent, Hoboken, N.J., succeeding **Joseph D. Chwan,** who retired May 13 after over 45 years service.

GREAT NORTHERN.—R. G. Tausch named chief mechanical officer, St. Paul, succeeding **M. B. Crowley,** who retired after 38 years of service. **H. M. Lary,** master mechanic, Spokane, Wash., appointed assistant to chief mechanical officer, St. Paul, Minn.

GREAT NORTHERN-NORTHERN PACIFIC-BURLINGTON.—Donald Baldwin appointed director of governmental relations, Washington, D.C., to succeed **Lloyd W. Smith,** who recently retired as the railways' special representative in Washington. Mr. Baldwin was formerly legislative director of the **National Forest Products Association.**

GULF, MOBILE & OHIO.—Vergil M. Perry, general freight agent, Chicago, promoted to freight traffic manager there. **Fred H. Bowers,** assistant freight traffic manager, Mobile, Ala., appointed freight traffic manager there. **Homer Gonzalez** named assistant general freight agent, Chicago, and **Harold G. Johnson** promoted to division freight agent.

KANSAS CITY SOUTHERN.—M. F. Clain appointed freight traffic manager (rate department), succeeding **J. H. McMahon,** resigned.

LOUISVILLE & NASHVILLE.—D. A. Reavis, superintendent of equipment, named general superintendent of equipment, Louisville. **C. O. Wines,** departmental manager, appointed manager-methods and procedures, Louisville.

MILITARY TRAFFIC MANAGEMENT AND TERMINAL SERVICE.—Col. Charles H. Lamback, director of freight traffic, MTMTS, retires from active duty in the U.S. Air Force on July 1. **Col. Armour S. Armstrong,** U.S. Army director of household goods, replaces Col. Lamback. **Col. Charles B. Claypool,** U.S. Army director of military plans since August 1965, appointed director of terminals and installations, succeeding **Col. Ransome T. Looper,** retiring. **Capt. Scott K. Anderson,** U.S. Navy, succeeds Col. Armstrong. **Col. Henry G. Dettmar,** U.S. Army, named acting director of plans and operations (formerly military plans).

MILWAUKEE.—Philip M. Hackbarth, attorney, Chicago, named assistant general solicitor there.

NEVADA NORTHERN.—M. Fondi appointed auditor, East Ely, Nev., succeeding **H. S. Fay,** retired.

NEW YORK CENTRAL.—J. W. Hobb named manager of freight train operation, New York City, reporting to **H. J. Slavin,** director of freight train operation (RA, May 30, p.96).

Melville Schaefer retired May 31 as purchasing agent, New York City, after 48 years of service with the railroad.

Warren K. Levenson, master mechanic, Springfield, Mass., appointed master mechanic, Lake division, Cleveland, Ohio, succeeding **Harold F. Levernosh,** promoted.

Thomas P. Halligan, division freight sales manager, New York, appointed manager of Flexi-Van sales and service there.

NORFOLK SOUTHERN.—J. C. Heacock appointed district sales representative, Richmond, Va.

PENNSYLVANIA.—W. C. Allen appointed general manager, operating administration, on the staff of the vice president—operations, with jurisdiction over freight claims, loading services, security and safety. Abolished position of general manager, TrucTrain, formerly held by Mr. Allen. TrucTrain operations will be under jurisdiction of the operating department and TrucTrain sales under jurisdiction of the traffic department.

Bruce A. Prather appointed geologist on the staff of **Charles C. Overlander,** manager, industrial development, Pittsburgh.

PORT OF NEW YORK AUTHORITY.—Robert M. Hawk has joined the Authority as rail development representative in the Rail Transportation Department. Mr. Hawk, formerly public relations representative, New York division, of the **Pennsylvania,** will assist in developing and conducting information programs for riders on the Port Authority Trans-Hudson (PATH) system.

Elwyn T. Ahnquist
Pullman-Standard

William B. Colwell
AMSTED

Supply Trade

J. W. Miller and **T. H. Callahan** have been named vice presidents, marketing, **Pullman-Standard** division of **Pullman Incorporated.** Mr. Miller was formerly in charge of the company's sales office at Washington, D.C. and Mr. Callahan has been in charge of sales for the New York office. **Elwyn T Ahnquist,** manager, field sales and administration, has been named vice president, field sales and administration. **John R. Long** appointed administrative assistant—manufacturing reports, succeeding the late **R. E. Sheppard.**

William B. Colwell, public relations supervisor, **AMSTED Industries,** has been named manager of public relations and advertising.

OBITUARY

P. H. Linderoth, retired signal engineer, **Milwaukee Road,** died recently.

Thomas H. Maguire, retired chairman and counsel, executive committee, **Western Railroad Traffic Assn.,** died June 2 at La Jolla, Calif.

Advertisers' Index

ACF Industries, Inc., American Car & Foundry Division 22-23

Berwick Forge & Fabricating Company 4
Bethlehem Steel Corporation 3
Brenco Incorporated .....Cover 2

General Railway Signal Company 9
Griffin Wheel Company, Amsted Industries 13

Hitachi, Ltd. 14

New York Air Brake Company, The 6

Pullman Standard Division of Pullman, Inc. 10

Stanray Corporation 32-33
Sumitomo Metal Industries .....Cover 3
Sylvania Electric Products, Inc. .....Cover 4

United States Steel Corporation 26-27

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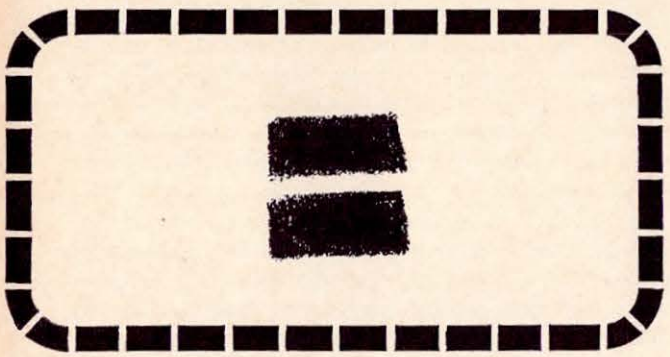

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THE ACTION PAGE

Tradition: Crumbling at the top, too

As Union Pacific's pursuit of instant answers (page 15) indicates, important changes are evolving in the rail industry's executive suites. Denver & Rio Grande Western earlier this month announced formation of a "major new department"—a department of management information services encompassing communications, data processing and systems development. New York Central, Southern, Louisville & Nashville and other roads are already restructuring jobs at the top because of both internal and external change.

Old positions are being invested with new responsibility. New positions are emerging in executive line-ups to handle tasks that did not exist ten years ago. Composite jobs are being created to handle shrinking responsibilities in areas that formerly represented the kingdoms of important executives in more leisurely eras. And there are jobs, historically important, that have lost most of their pertinence to today's industry. Some of these titles are little more than ceremonial rewards to veteran managers. Such jobs, much like the union jobs blanked by attrition, are simply not filled as incumbents retire. In short, the structure of railroad leadership is being shaped by the challenges of a changing industry in a changing society.

Technology's demands

Such organizational changes (though slow and almost imperceptible to all but the most experienced executive-watchers) are very important. Growing technological know-how, changing commercial opportunities and the deepening national need for more common carrier transportation (at costs that won't cannibalize our society's economic achievements as they are generated) have already triggered significant changes in railroad executive suites.

Unions—fussing with the displacement of ancient and honorable crafts by technological change—ought to take a careful reading of such changes. The desks where policy and power in large companies really come to focus are often not the same desks that had such influence even a few years ago.

There are obvious changes. Where are the superintendents of water, the division accountants, the general superintendents, the legions of important general agents that were once so important a part of the railroad scene? New jobs are even more obvious. There are directors of data processing, research officers on both the technical and commercial side of railroading, personnel training directors, industrial engineers and many others in more and more influential posts on more and more railroads.

Less easy to spot are the old jobs that now cover new responsibilities and expanded power. Traffic vice presidents nowadays wrestle with an increasingly scientific environment as they make moves that transform entire industries and regions —aided by market researchers operating in tandem with equally transformed mechanical officers producing equipment tailored to rail competitive strategy.

Lower rates and better service

Operating officers' lives have been changed enormously—upward as well as downward. Communications and computers have complicated as well as simplified existence for the men responsible for running the trains. Such capability is behind what operating men are delivering to top management—a steady pattern of decreased rates and better service to shippers.

Similarly, accounting and financial officers have had their lives altered. Computers, communications, centralization, mergers and the changing relationships between capital investment and service requirement have transformed jobs once dominated by the need for assembling rather predictable historical records. Top jobs in motive power, equipment, communications, purchasing and engineering have been undergoing similar change.

In short, the industry is generating new, more demanding jobs in wholesale lots. Some are new. Some are hidden under old titles. Some old job titles are quite hollow in today's fast-changing railroad business. Traditional standard railroad organizations, while still much the rule in the industry, are everywhere evolving toward the accommodation of new techniques, new opportunities and new talent. Tradition at the top is crumbling—fast.

New traditions will evolve from the creative efforts of the men in new and more complicated jobs at the top. One imagines railroading will become more and more of a young man's game as the word spreads about the opportunity and the wide-open requirement the industry has for gifted, creative transportation entrepreneurs.

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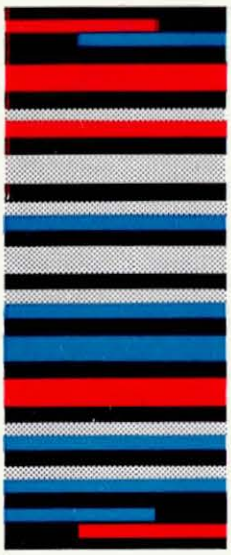

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